



**FIFA**  
**Research Scholarship**

# **“Developing Gender Eligibility Policies in Football: Diverse Perspectives”**

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**FINAL REPORT**

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## **Executive Summary**

This unique report investigates the diverse perspectives on the participation of gender diverse athletes in sport, and their impact upon the regulation of gender eligibility policies in football. The inclusion of gender diverse athletes, that is, trans athletes and athletes with sex variations (DSD/Intersex), in the female sport category is at the centre of sport and society debate following high-profile cases involving athletes such as Caster Semenya, Laurel Hubbard and Lia Thomas. Their eligibility is questioned because of a perceived unfair biological advantage. Most of the arguments are framed around fairness, safety, advantage, injury, risk and access, and this takes place at a time when gender identity is evolving beyond a binary in wider society, with more explicit recognition in law and human rights legislation. Increasingly, academics, experts, stakeholders, policy makers and athletes are grappling with the conundrum of how to include gender diverse athletes into a binary system that has been historically designed for typical female bodies. There is a growing presence of gender diverse people in football, yet there remain fundamental questions around how to regulate this matter effectively and develop satisfactory gender eligibility policies. Although progress is being made and sports governing bodies are engaging with working groups and citing research, eligibility is largely driven by a portion of the science community, with an absence of collective representation across the areas of sport, science, law and human rights, lived experiences of athletes and ethics. Those viewpoints tend to sit in isolation from each other in this debate and this is resulting in a disjointed approach to the governance of gender in sport, with potentially harmful consequences. In the absence of such connected discussion, regulation is at risk of going backwards.

It is reported that FIFA is currently reviewing its gender eligibility policy. In support of this, the project intends to have an immediate impact by adopting a triple method technique to explore the surface, context and core aspects of gender eligibility. Firstly, a surface-based Scoping Review of a selection of twenty-five sport gender eligibility policies found that although gender policy making is advancing, the regulatory landscape is complex and inconsistent across and within sports. There is a trend towards bans and testosterone suppression, which are premised upon notions of biological advantage, safety, and fairness. However, the long-term effectiveness of the bans are not yet clear and there are ethical concerns around testosterone requirements. There does not appear to be any consistent approach to team sports, contact sports, non-contact sports or mind sports. The application of rules is also imbalanced, and the Review demonstrates that there is a lack of distinction between trans-female and DSD policies. In terms of working groups and consultation, the process neglects transparency and there is an absence of diverse views beyond the science community to contribute effectively to the decision-making process. These regulatory gaps produce a challenge for football stakeholders when determining gender eligibility rules.

Secondly, the comprehensive Literature Analysis contextualises the sport, science, human rights, law, lived experiences and ethics views on gender eligibility, concluding that there is no single perfect perspective, and we still have some way to go to truly value the multidisciplinary nature of gender diversity and sport participation. It is not the responsibility of one group alone to overcome discrimination and develop rules unilaterally. This cross-section Analysis

emphasises the shortfalls in understanding diverse perspectives and using those stories to positively inform policy making.

Thirdly, the project goes to the core of sex, gender and sport through an assessment of thirty Unstructured Conversations, which took place with seven Academics from psychology, human rights, sports law and sociology; four Science and Medical Experts; eight Athletes across all levels including cis-female, cis-male and trans-female; five Specialists in particular sport areas including university sport, inclusion, human rights, sustainability and a trans organisation; three coaches/managers in Men's Football; three coaches/heads in Women's Football. Eight fundamental themes emerged from the conversations which offer illuminating insights into the factors driving attitudes on gender eligibility. The themes related to policy approach, elite versus community levels, advantage, solutions, sex differences, inclusion, motivations and DSD athletes. The project has moved away from reducing the debate to yes or no, for or against gender diverse inclusion and instead fostered a rich narrative that is indicative of a dynamic and multilayered panorama of considerations.

Drawing upon synergies and divergences across the three studies, the report remedies the regulatory gaps by offering practical guidance in form of eight future-facing recommendations aimed at cultivating an effective and harmonious, rather than oppositional approach to regulation. They are designed to make an immediate and practical contribution to the current FIFA review and include, 1) Conversations and Collaboration; 2) Start from the Bottom Up; 3) Guidance for All Levels of Football 4) Cycle of Regulatory Renewal; 5) Lead the Way and Lead with Care; 6) Gender Diversity in Football FIFA Group; 7) Education Toolkits; 8) DSD Athlete Inclusion. Regulatory parameters are necessary, but it is vital to understand and value gender diversity before making judgements and imposing restrictions within a constantly shifting environment.

It is accepted that there is no easy solution, but this report proposes a future-facing model for credible and responsible regulation of gender diversity in football. Football has a unique platform to alter the current gender status quo by leading the way with care through a collective approach to gender eligibility.

## **Introduction**

This unique report examines diverse perspectives on the participation of gender diverse athletes in sport, and their impact on the development of gender eligibility policies in football. The participation of gender diverse athletes, that is, trans athletes and athletes with sex variations (DSD/Intersex), in the female sport category is at the centre of sport and society debate following high profile cases involving athletes such as Caster Semenya, Laurel Hubbard and Lia Thomas. Their eligibility is questioned because of a perceived unfair biological advantage. Most of the arguments in sport are framed around fairness, safety, advantage, injury, risk and access, and this takes place at a time when gender identity is evolving and expanding beyond a binary in wider society. Societal parameters are shifting in the global north and there are increasing campaigns for legal reform of gender status to embrace trans and DSD rights and offer more explicit protection in law and human rights legislation. Increasingly, academics, experts, stakeholders, policy makers and athletes are grappling with the conundrum of how to include gender diverse athletes into a binary system that has been historically designed for typical female bodies. Historically, football was a space designed for men, riddled with discrimination and inequality for women (Ruggie 2016). Modern football has undergone a transformation and there is phenomenal acceleration of women's football, with increased visibility across most aspects of the game. Women continue to navigate this complex space where sex, gender and identity intersect and often collide. There is an increasing presence of gender diverse people in football. For instance, Sophie Cook became the first trans-female to work in the Premier League as a team photographer for AFC Bournemouth; Jayiah Saelua identifies as a third sex widely accepted in the Polynesian culture and has played for American Samoa men's team; Quinn is a Canadian trans footballer who has openly spoken about inclusion; Sapir Berman became the first trans-female referee officiating in Israel. These examples illustrate that football can be a welcoming and accepting environment for gender diverse people. However, there exists a number of legal, regulatory and social barriers to inclusion across all levels of sport because of perceived difference.

There are ongoing questions around how to regulate this matter effectively and develop effective gender eligibility policies that offer a fair and justified solution for all impacted participants. There is currently an enhanced focus on the rights and well-being of athletes, the duty of care in sport and the legal accountability of sports governing bodies. Although policy making has advanced and sports governing bodies are engaging with working groups and building upon research and evidence in their consultation, eligibility is largely driven by a portion of the science community, with an absence of collective representation and collaboration across the areas of sport, science, law and human rights, lived experiences and ethics. Those perspectives tend to sit in isolation from each other which could be leading to a fragmented approach to the governance of gender in sport, with potentially harmful consequences. The dominance of poorly informed public and political opinion is having a further negative impact on regulation and the issue is becoming polarised with no ideal solution available. In the absence of such connected discussion, regulation is at risk of going backwards.

It is reported that FIFA is currently reviewing its gender eligibility policy. In support of this, the project intends to have an immediate impact by adopting a unique triple method research design to explore the surface, context and core aspects of gender eligibility. Firstly, a surface-

based Scoping Review of a selection of twenty-five sport gender eligibility policies will be conducted to map out the current regulatory landscape and to identify trends in inclusion or exclusion. Any regulatory gaps will be highlighted through this process.

Secondly, a comprehensive Literature Analysis will be undertaken to delve beneath the surface and contextualise the perspectives of sport, science, human rights, law, lived experiences and ethics views on gender eligibility. This cross-section Analysis will reveal areas of strengths and shortcomings in our understanding of those diverse perspectives.

Thirdly, the project will reach to the core of sex, gender and sport through a thematic assessment of thirty Unstructured Conversations, which will take place with seven Academics from psychology, human rights, sports law and sociology; four Science and Medical Experts; eight Athletes across all levels including cis-female, cis-male and trans-female; five Specialists in particular sport areas including university sport, inclusion, human rights, sustainability and a trans organisation; three coaches/managers in Men's Football; three coaches/heads in Women's Football. The project moves away from reducing the debate to yes or no, for or against gender diverse inclusion and instead seeks to foster a rich narrative that is indicative of a dynamic and multilayered panorama of considerations.

The three studies will then be compared to draw out synergies and divergences that can be used to remedy current regulatory gaps and offer practical guidance aimed at cultivating an effective and harmonious, rather than oppositional approach to regulation. The project is designed to make an immediate and practical contribution to the current FIFA review.

It is accepted that there is no easy solution, but this report proposes a future-facing model for credible and responsible regulation of gender diversity in football. Gender eligibility regulation is at a critical stage in sport, and the actions of sports bodies in their respect for the rights of all affected athletes, are under significant scrutiny. This is a timely project and as FIFA reviews its policy, football has a unique platform to alter the current gender status quo by leading the way with care in a collective approach to gender eligibility.

### **Objective and Research Questions**

The aims and objectives have evolved and changed course throughout the project, influenced largely by the interim report feedback, which greatly contributed to re-defining the scope of the project. Trends from the Scoping Review, emerging themes from the Literature Analysis and a rich narrative from the Unstructured Conversations also steered the direction of the project. Some of these adaptations could only be discovered as the project was underway.

Following confidential discussion with the FIFA Human Rights Programme Manager, they explained the current progress with the FIFA gender policy and advised that my contribution should inform the process of developing a policy, rather than the policy itself which is already well underway in terms of drafting. They clarified that the objective for this project should be to potentially facilitate FIFA by outlining central considerations that should be noted during its gender eligibility policy process. This meeting was a turning point in the re-framing of the project.

Against this background, the central objective of this project is to capture the varied and diverse perspectives on the participation of gender diverse athletes in sport to generate immediate, future-facing practical recommendations for the development of a credible and robust football gender eligibility policy. The project assesses the following questions:

1. What is the current landscape of gender eligibility regulation in sport?
2. What are the competing perspectives and what basis do they have?
3. What are the particular challenges facing football stakeholders when determining sport specific gender eligibility rules?
4. How can football policy makers develop robust gender eligibility policies? What considerations need to be made?

## **Methodology**

Adopting a unique triple layer research design to explore the surface, context and core aspects of gender in sport, this project employs three primary methods:

*Scoping Review of gender eligibility policies:* On the surface of the debate are the gender eligibility policies. In order to understand the complex state of gender eligibility regulation in sport, a Scoping Review was conducted, consistent with current styles (McLarnon et al 2023). A scoping review is an increasingly popular methodological tool that synthesises knowledge in an existing or emerging area, such as gender eligibility in sport, to map the range, extent and nature of the research, including any shortfalls in the area (Mak and Thomas 2022). It can also apply to reviewing non-academic sources such as policies (Peters et al 2021). Scoping reviews are considered a beneficial step prior to conducting research because they set the scene for developing a research project. In this Scoping Review twenty-five sports were analysed, focusing on sports that might be of most interest or relevance to FIFA, such as those where the international governing body has undertaken consultation and research into gender eligibility. At the same time, for comparison some nuanced sports were also reviewed. The trans-female or DSD policies were accessed for each chosen sport, primarily through internet searches and via official governing body websites. Media coverage of gender eligibility assisted in signposting to the policies which were often difficult to locate on the official websites. This Review identified the gender eligibility rules of the international governing body of the sport, the rules of national governing body (focusing on England), any recreational policy available, any DSD policy available and any other options offered by the sport. This information was collected and organised into a table (Table 1). It should be noted that some information was not located during the Scoping Review. This does not necessarily mean that guidance is unavailable or non-existent, but rather, may be illustrative of some regulatory gaps.

*Literature Analysis of diverse perspectives:* Beneath the surface of the policies, a comprehensive Literature Analysis of diverse perspectives was conducted to contextualise the sport, science, human rights, law, lived experiences and ethics views on gender eligibility. This cross-section Analysis revealed areas of strengths and shortfalls in our understanding of those dynamic viewpoints which underpin current policies. This project employed a literature based doctrinal investigation. In the early stages of the project, the literature analysis was limited to law and regulation. Law is studied here as a normative system where the empirical data

originates from legal material, legislation and court decisions. However, as the project evolved, it became clear that law and regulation cannot be measured in isolation from the broader views impacting gender eligibility. To do so, would contradict the objective and the essence of the project, which has expanded to encompass a much wider range of interests. This project conducts what can be classified as socio-legal research or law and society research, where multidisciplinary research explores law within the social setting of sport. It seeks to understand how and to what extent legal practices and frameworks impact upon sport regulation and vice-versa.

The research objects consulted are a variety of online and paper-based academic and non-academic sources. These include general sources of theoretical literature and empirical research located in monographs, textbooks, handbooks and journal articles; sport constitutions, charters, statutes, regulations, plans and strategies; domestic, regional and international legal material such as legislation, conventions, declarations and case law; newspaper reports and media coverage of gender eligibility in sport; resources available from women's organisations, equality groups and gender diverse bodies.

One of the strengths and unique qualities of this project is its multi-disciplinary approach, drawing upon a range of fields including sport, law and regulation, science and medicine, sociology, ethics and philosophy. Materials from these disciplines are used to interpret and critique the sport and legal regimes in the context of gender diversity. Legal interpretation of material is a common method used by judges to understand legislative provisions such as statute or legal rules derived from the common law. Sport and legal provisions will be critically examined in these ways to explore the various interpretations of rules and statutes by the sports bodies and courts where relevant. Analysis of the literature in this varied and expansive way will provide FIFA with a deeper comprehension of gender diversity in sport.

*Unstructured Conversations with relevant individuals and groups:* Moving beyond the surface of the Scoping review and the context of the Literature Analysis, this project reached to the core and conducted 'Unstructured Conversations' with seven Academics from psychology, human rights, sports law and sociology; four Science and Medical Experts; eight Athletes across all levels including cis-female, cis-male and trans-female; five Specialists in particular sport areas including university sport, inclusion, human rights, sustainability and a trans organisation; three coaches/managers in Men's Football; three coaches/heads in Women's Football. Originally, the project aimed to convene three advisory expert groups in the form of roundtable discussions, to explore, discuss and critique the design of various regulatory strategies for progressing the protection of gender diverse players in football. However, the project evolved beyond this and sought to represent a wider pool of voices. The interim report feedback also encouraged a more balanced methodology.

Talking to people informally is considered an underutilised yet valuable research method, and a critical element of qualitative research (Swain and Spire 2020). It is argued that informal conversations are often the best and only way to generate meaningful data (Swain and King 2022). This method is very flexible and enables participants to speak in an authentic and comfortable way. Informal conversations can generate principal data and although informal or



unstructured, they nevertheless serve an important purpose and reach to the heart of a particular issue.

Contacts were captured from an existing network which strengthened as each participant recommended additional contacts. It was imperative to develop a relationship with the participant, build trust and ensure that they spoke truthfully in a natural and organic setting, particularly given the sensitive and emotive nature of the topic (Swain and Spire 2020). The conversations were used as a vehicle to break through the rigid dominant discourse. I was keen to avoid reducing the discussion to quantitative for or against questions. Instead, I sought to obtain rich narrative data about opinions and reasoned views to demonstrate the magnitude of gender diversity in sport.

In order to achieve this, free conversation was a major aspect of the research method, but it was necessary to distinguish them from daily exchanges and social chats. Each participant was emailed with a formal introduction to the project and an outline of the Unstructured Conversation online or face to face. The majority of the participants preferred a one-on-one online discussion with me because it was easier to arrange due to limited availability and time. Where they took place face to face, they were offered food or drink in a social setting. Some of these conversations took place in small groups, because of the original project objective and/or because the participants were friends.

Each participant consented to their views being included in the project and the majority preferred anonymity which also slightly altered the project. When the meeting took place, I was aware of the risk of contributing my own opinion during this conversation but by encouraging the participant to steer the narrative rather than adhering to a strict structure, I focused on recording the comments in handwritten note form, listening to and absorbing their story for an immersive ethnographic experience. The duration of the meetings were around one hour and at the end of each meeting, I summarised their opinions to ensure that my notes were accurate.

### **Limitations**

It was anticipated that discussions might take place with key FIFA members who are involved in the current review of the gender eligibility policies in football, to understand the football position and to identify gaps in the consultation on this matter. Although this did not take place, a successful meeting was arranged with the Human Rights Programme Manager to confirm the scope of this project which made a positive contribution to its final design and focus.

This project was conducted under significant time constraints, which has impacted the scope and depth of the research. The Scoping Review could have been more extensive and additional Unstructured Conversations could have been conducted. Due to the limited timeframe available, comprehensive data collection and analysis were not feasible. Furthermore, the available funds did not cover buy-out time, meaning that the research had to be conducted alongside other professional responsibilities. This dual burden has further limited the ability to dedicate extensive time to this project.

These constraints have inevitably led to a narrower focus than initially intended, potentially restricting the depth of some aspects of the study. Despite these limitations, efforts were made

to ensure that the findings presented are robust and reliable within the context of these constraints. Future research with more dedicated time and resources could build upon these findings to provide a more comprehensive understanding of the subject.

It was expected that travel would be required to meet participants and speak with them. However, most preferred to speak online because it suited their busy schedules. This reduced travel and catering costs but did not reduce the costs of scheduling and preparing for each meeting, collecting data from thirty participants, and spending time analysing the rich narrative data obtained.

Nevertheless, this unique project offers a crucial snapshot of the landscape and can serve as a springboard for further research and development at all levels of the game (see practical guidance).

## **Background**

This section provides a brief background to the regulation of gender in sport and defines key terms. The concepts of sex and gender have often been used incorrectly and interchangeably in particular areas such as law and sport, contributing to imbalances (Patel 2015). Sex refers to a fixed group of biological traits that are determined at birth and include chromosome, hormone and anatomy characteristics of the human body. Sex differences can also be attributed to socio-cultural journeys and human behaviours (Patel 2015; Cooper 2023). It is largely assumed that all aspects of biological sex are always aligned, but there can be divergences (Handelsman, Hirschberg and Bermon 2018). Gender is considered a social construct incorporating qualities associated with masculinity, femininity and orientation (Patel 2015). Gender identity relates to the sense of self. Western societal structures have traditionally naturalised this binary division between men and women, although this is not an inherent human requirement (Cooper 2023; Kane 1995: 191). Sex categories are the foundation of sporting activity and they reinforce the distinct biological differences between typical men and women (Cooper 2023).

Sport was traditionally designed and conserved for men, founded upon dated assumptions of male physical superiority and female unsuitability to sport. Women were treated as being ‘athletically incompetent’ (Torres, Frias and Patino 2022: 40). It is well documented that the England Football Association (FA), banned women’s football on affiliated football grounds for fifty-one years. The modern landscape of women in sport has transformed from historic barriers to access and opportunity, to unprecedented dominance and success (Bowes and Culvin 2021). Female involvement in football has strengthened, leading to an increase in opportunities for access and development at the professional level (Culvin and Bowes 2023). The Paris 2024 Olympic Games represents a major milestone in gender parity, with 50/50 representation expected between men and women on the field for the first time in Olympics history.

Despite this positive advancement, women continue to struggle for equality, access to facilities and training, pay and prize money, working conditions, treatment, media coverage and status (United Nations 2023). The protection and promotion of the female category of sport is therefore considered a priority to overcome imbalance and ensure fair opportunity. Binary categories are legitimised to account for biological sex differences in performance and ability, based on the view that men enjoy physiological advantages over women, even where the biological distinction is not necessary (Patel 2025). Sex segregation across and within male and female categories of sport, is justified as a way of drawing necessary competitive lines, maintaining competitive parity, and guaranteeing equal opportunities and benefits for female sport (Martowicz et al 2023). Segregation secures a safe space for women to compete and excel in sporting activity and there are also economic and commercial justifications for maintaining the segregation (Blakey 2018: 295).

Gender diverse groups challenge these fixed biological parameters of men, women, male and female. They enrich the narrative and instead represent a fluid gender spectrum that is far broader than male or female (Larson 2011: 247; Teetzel 2020: 433). A cluster of identities exist but trans-females and individuals with sex variations are the focus of this project. Trans people view their gender identity or expression as inconsistent with their gender registered at birth, based on their perceived sex (male or female). Trans people often experience a dysphoria as a

result and they may live socially in their preferred identity with or without altering their appearance to resolve their dysphoria. This might involve gender-affirming hormone treatment (testosterone blockers and oestrogen boosters), medical surgery and/or legal transition. A trans-female person is assigned male at birth but identifies as female. A trans-male person is assigned female at birth but identifies as male. Those whose gender identity aligns with their sex may be referred to as cis-gender.

Individuals with sex variations, differences of sexual development (DSD) or intersex, refer to a heterogeneous collection of varied biological identities prevalent amongst men and women that do not necessarily confer physical superiority (Larson 2011: 232). Knowledge and understanding of sex and gender variations remains limited despite forming part of human diversity because any variations may never be realised by the individual until they undergo testing (Bowman-Smart et al 2024: 46). They may experience fluctuations in their internal or external biological characteristics associated with sexual differentiation such as genetics, chromosomes and hormones or genitalia (Newbould 2015: 256; Bowman-Smart 2024). A number of sport policies have constructed regulations around hyperandrogenic female athletes with 46 XY DSD (Bowman-Smart 2024; Windholz 2020: 598; Tucker 2019).

The sport conflict arises when gender diverse athletes seek to compete in the female category because it is argued that post-pubescent trans-females retain male advantageous traits following medical transition and therefore enjoy a potentially unfair biological athletic advantage (Hamilton et al 2024). This creates injury and safety risks for cis-female athletes and their gender identity also presents practical concerns regarding inclusive facilities and spaces designed conventionally for binary men and women. In comparison, trans-male athletes are not considered to possess an advantage and have not been subject to the same treatment when seeking to participate in the male sport category even though any trans-female eligibility rules will likely also impact upon trans-males. The broad objection to DSD athletes is that some of the spectrum of variations result in a competitive advantage over typical female athletes such as increased levels of testosterone which are linked to performance advantage in sport.

Sport is increasingly at odds with the moving boundaries of gender identity because it is firmly attached to its heritage and binary structure. The balance between inclusion and exclusion is most challenging because of the specificity of sporting activity and the fundamental nature of competition that requires winners and losers (Patel 2015). Historically, sports bodies managed categories through sex testing methods as a way of deterring deliberate cheats, preventing gender fraud and scandal, and regulating advantage (Patel 2015). Distinctions between diverse gender identities did not previously exist in sport and regulation began with a superficial understanding of gender diversity (Patel 2025). In the 1960s, sports bodies sought to police sex categories and treat those who digressed from the binary with suspicion. Early methods involved external visual examinations of naked female athletes to prove their identity, which were humiliating, degrading and inaccurate. As advancements in technology developed, genetic chromosomal checks replaced visual inspections. These mandatory unreliable procedures were abolished in the 2000s, and the process moved to a suspicion-based case by case model framed around gender verification and medical examinations. The regulatory frameworks were re-positioned to focus on athletes testosterone levels as a biological marker

of performance in the female category. Eligibility rules did not apply to men, with no testosterone limits in the male category.

### **Developing Policies**

The International Olympic Committee (IOC) Olympic Charter affirms that the practice of sport is a human right, which applies without discrimination based on sex, birth, or other status. However, this right is not absolute and conditional upon compliance with principles of fair competition, deferring to each sport to determine eligibility. In order to maintain the protection of sex categories, in modern times private international sport governing bodies are responsible for developing eligibility criteria that are fair and non-discriminatory but that also promotes gender equality (Martowicz et al 2023). Formal policies and guidance have mostly been driven by the IOC and World Athletics (WA) and did not exist until the 2000s. Position statements from women's sport groups, LGBTQ+ and equality organisations have also been published in support or opposition to gender diverse inclusion (Piggott 2020).

The 2006 WA DSD policies required mandatory medical treatment to lower testosterone levels within an acceptable range. These were replaced by the Hyperandrogenism Regulations 2011 which were framed around the degree of advantage enjoyed by female athletes who produce excessive levels of androgen hormones and enjoy a significant performance advantage over non-hyperandrogenic women. The 2011 Regulations were scrutinised when Indian female sprinter Dutee Chand was prohibited from competing after failing eligibility requirements in 2014. Chand refused medical treatment to lower her androgen levels, and successfully challenged her ban before the Court of Arbitration for Sport (CAS). CAS suspended the 2011 Regulations in the absence of sufficient scientific evidence relating to testosterone and confirming the existence of an advantage (*CAS 2014/A/3759 Dutee Chand v. Athletics Federation of India (AFI) and The International Association of Athletics Federation (IAAF)*). World Athletics reviewed its evidence on performance advantage and narrowed its boundaries according to athlete and events. The Eligibility Regulations for the Female Classification (Athletes with DSD) 2018 were introduced and require 'biologically male' athletes with 46 XY DSD, to reduce their naturally high hormone levels, or compete in the male category if they are ineligible to enter specific female events. Chand was permitted to compete since the new 2018 Regulations did not apply to her event. Over the course of the DSD policies, South African sprinter Caster Semenya has been subject to the various gender verification tests and prohibitions. Following her exclusion from competition under the 2018 Regulations, she became the subject of CAS proceedings and a reference to the European Court of Human Rights (ECtHR) (examined below).

For trans-female athletes, the IOC Stockholm Consensus 2003 required post puberty trans-female athletes to have completed surgical changes, legal recognition of their assigned sex and hormonal therapy for participation. These inconsistent medical and legal conditions were replaced by the IOC Consensus Statement 2015, which removed the requirement for surgical intervention and permitted inclusion if testosterone levels were maintained below a set threshold for at least twelve months prior to competition during hormone therapy. At the Tokyo Olympics 2020, New Zealand weightlifter Laurel Hubbard satisfied these requirements and became the first trans-female athlete to compete in the Olympic Games in the female category.

She was eliminated from the female +87 kg competition after failing to register a valid lift in the snatch section. USA BMX bike rider Chelsea Wolfe was the first US trans-female to qualify for the Tokyo Olympics Team USA as an alternate.

### **Current Trends**

In November 2021, the IOC introduced the IOC Framework on Fairness, Inclusion and Non-Discrimination on the Basis of Gender Identity and Sex Variations which is non-binding guidance, but centres around ten key principles- inclusion, prevention of harm, non-discrimination, fairness, no presumption of advantage, evidence-based approach, primacy of health and bodily autonomy, stakeholder-centred approach, right to privacy and periodic reviews of eligibility criteria. Each pillar serves to ensure that everyone can participate in sport irrespective of their gender identity or sex variations. Following extensive consultation with all athletes and stakeholders (including human rights, law, science and medicine), the guidance places fairness, inclusion and non-discrimination at the centre of its objectives. Supported by a position statement which further explains how the Framework connects to current scientific and medical evidence (Martowicz et al 2023), it marks a shift from the scientific arguments underpinning most policies and instead prioritises a multidisciplinary decision-making process that considers ethical, legal, human rights, safeguarding and social aspects alongside the scientific and medical evidence (Martowicz et al 2023).

Responses to this were mixed, underlining the prevailing uncertainties in policy making. Whilst some welcomed the move towards inclusion, a portion of the medical community objected to the sidelining of scientific evidence that shows retained performance advantages by trans-females, and the significant burden placed on some sports bodies who may not have the funds or capacity to implement policies (Piggozi et al 2022; Devine 2022b). The ‘no presumption of advantage’ principle seeks to ensure that assumptions are not made about an athletes athletic ability based upon their biological or physiological traits, sex or gender identity and/or expression of appearance (Martowicz et al 2023: 28). It is emphasised that performance is determined by a dynamic range of factors beyond physiological characteristics (Martowicz et al 2023). However, Lundberg et al argue that the ‘no presumption of advantage’ principle misaligns with the reality that testosterone exposure does impact upon male performance advantages in particular athletic traits and that trans-female athletes retain such advantages with testosterone suppression (2024).

Although we have moved away from the humiliating and discriminatory sex testing regimes, and there is greater awareness of gender diversity in sport, knowledge remains in its infancy, tension is increasing, and the debate is at its most intense.

## **Scoping Review of Gender Eligibility Policies**

The IOC Framework recognises the unique characteristics of each sport and encourages each international sports federation to develop sport specific knowledge in the context of their own eligibility criteria. In response to this recommendation and the increasing pressure to address gender eligibility, most sports have acknowledged the IOC Framework but few policies have implemented all pillars and are varied in their approach. Some studies have evaluated a selection of sport gender policies (Wright 2024; McLarnon et al 2023). Wright highlights that the majority of sports examined in their study ban trans-females from competing in the female category (2024). McLarnon et al emphasise the absence of consistency across the sports investigated in terms of managing gender eligibility in sport participation (2023). A Scoping Review of a selection of twenty-five sport polices for this project is outlined in Table 1 below;

Table 1: Scoping Review of a Selection of Sport Policies

<b>Sport</b>	<b>International Federation Trans-female Policy</b>	<b>National Governing Body Trans-female Policy</b>	<b>Recreational/Community Policy</b>	<b>DSD Policy</b>	<b>Other Options</b>
Football	<b>FIFA: Currently under review</b>	England Football Association (FA): Application for approval to compete in affirmed gender, case by case, hormone therapy for sufficient time or gonadectomy. Safety and fairness considered.	England FA: Case by case, inclusion policy German FA: Self-ID for amateur players	Not found	Not found
Rugby	World Rugby: Ban	England RFU: Ban	Not found	World Rugby- Case by case	Compete in mixed gender touch rugby
Athletics	World Athletics: Ban	England Athletics: Ban	Not found	T Levels over a 2 year period less than 2.5 nmol/L	Not found
Cycling	UCI: Ban	British Cycling: Ban	British Cycling: Focused on inclusion	Not found	Men/Open Category
Swimming	World Aquatics: Ban beyond male puberty	Swim England: Ban from female category	Swim England: Two tier approach, self-ID in low-level “unlicensed” events.	Ban beyond male puberty and evidence of T suppression	Open Category
Cricket	ICC: Ban beyond male puberty	England and Wales ECB: Professional club and England pathway teams governed by the ECB, written clearance, case by case.	England and Wales ECB: Self-ID for recreational clubs	Not found	Mixed gender or Open

Triathlon	World Triathlon: Permitted if T Levels are reduced to an accepted level for a period of 24 months	British Triathlon Federation: Ban over the age of 12.	British Triathlon: Self-ID where no competitive element	World Triathlon: Statement that DSD are not addressed in policy.	Open Category
Rowing	World Rowing: Permitted if T Levels are reduced to 2.5 nmol/l for 24 months	British Rowing: Ban	British Rowing: Self-ID where no competitive element	Not found	Open Category Mixed Category
Sailing	World Sailing: Ban beyond puberty	England Royal Yachting Association: No policy	Not found	Not found	Not found
Boxing	International Boxing Association and World Boxing: Not found	British Boxing Board of Control: Under review USA Boxing: Permitted if over 18, undergone genital reassignment, submit quarterly hormone tests for 4 years	Not found	Not found	Possible trans category
Golf	LPGA: Permitted if undergone gender reassignment, 1 year hormone therapy PGA: Permitted if proof of gender status or hormone therapy	England Golf: Not found USGA: Follows LPGA rules	Not found	Not found	Not found
Badminton	Badminton World Federation: Interim policy, case by case	Badminton England: Sanctioned and non sanctioned ban, female at birth	Badminton England: Self-ID	Not found	Open replaces male category
Tennis	International Tennis Federation: Permitted if written declaration of female identity, T Levels below 5 nmol/l for 12 months  Womens Tennis Association: Gender	England LTA: Comply with ITF for those on performance pathway USA USTA: Declaration of gender ID, minimum of 4 years, T level monitoring	LTA: Self- ID USTA, no requirement of gender ID	WTA: Players legally and psychosocially female since childhood (including pre-pubertal sex re-assignments) are eligible to participate in WTA Tournaments	Not found



	declaration min 4 years, T levels below 10 nmol/l for 12 months				
Netball	World Netball: Ban from international competitions	England Netball: Under review Netball Australia: Include trans and gender diverse	Not found	Not found	Not found
Angling	Confédération Internationale de la Pêche Sportive (CIPS): Ban	England The Angling Trust: Ban from female angling	Not found	Not found	Open category for men, women, gender diverse, mixed.
Hockey	FIH: Case by Case?	England Hockey: Performance pathway regulated by FIH	England Hockey: Permitted to train play in informal competitions matches	Not found	Not found
MMA	International Mixed Martial Arts Federation: Ban	English Mixed Martial Arts Association- not clear	Not found	Not found	Not found
Karate	Not Found	English Karate Federation: Gender declaration for 4 years minimum, T Levels 10 nmol/l for 12 months; monitoring	Not found	EKF: Hyper-androgenism, eligible if androgen levels below the male range or, if within the male range, no competitive advantage	Not found
Judo	Not Found	British Judo: Ban	British Judo: All eligible to practice non-competitive Judo	Not found	Not found
Power-lifting	International Powerlifting Federation: Gender declaration, min 4 years, T Levels below 2.4 nmol/l, and/or free testosterone equal or below 0.433 nmol/dL nmol/litre (nmol/L),	British Powerlifting: Not found  Canadian Powerlifting Union: IPF sanctioned events comply with IPF rules  USA Powerlifting: Ban	Canadian Powerlifting Union: Grassroots Competitions, local, fun, participation over performance, competitions not sanctioned by the IPF, self-ID	Not found	Open category

	Recognises IOC guidelines				
Weight-lifting	International Weightlifting Federation: Unclear	British Weightlifting: Over 16, T Levels within the range of her affirmed gender or gonadectomy	Not found	Not found	British Weightlifting: Male or mixed if no treatment
Ice Hockey	International Ice Hockey Federation: T Levels less than 5 nmol/L1 for 12 Months	England Ice Hockey: Under review Ice Hockey UK: Under review	Not found	Not found	Not found
Chess	International Chess Federation (Fide): Ban	English Chess Federation: Permitted	Not found	Not found	Not found
Volleyball	FIVB: Unclear	Volleyball England: Ban	Not found	Not found	Mixed competitions
Darts	Darts Regulation Authority: For women's series and women's match play, Gender declaration, T Levels below 10 nmol/l for 12 months	UK Darts Association: Evidence of reassignment for 1 year	Inclusive self-ID	Not found	Mixed gender categories

## Discussion

From the Scoping Review above, a current trend is to prohibit trans-female athletes post puberty from competing in the female category, with ten international federations instituting a ban. World Rugby becoming the first international governing body to ban trans-female players from the female categories of rugby league and rugby union in 2020, founded upon studies relating to sex differences in sport performance, male-associated biological advantage and increased injury risk. World Rugby introduced a multidisciplinary working group tasked with formulating guidance for trans-female players, seemingly eliciting views from a range of perspectives. In March 2023, World Athletics banned trans-female athletes who have experienced male puberty from participating in female elite level competitions. In its view, in the absence of sufficient scientific evidence that trans-female athletes do not retain an advantage over biological women, president of WA Sebastian Coe expressed that the WA Council must be guided by the overarching principle of protecting the female category. Coe referred to the initiation of a working group, who will consult with the trans athlete community and potentially engage in further research where necessary. He explained that the working group will include an independent chair, WA Council members, two athletes from the Athletes Commission, a trans athlete from athletics, three representatives of member federations, and representatives of the WA health and science department.

In 2023, the Union Cycliste Internationale (UCI) reversed its conditional position and restricted its female category to those who are biologically female. This affected Chelsea Wolfe and American cyclist Austin Killips who satisfied the previous policy which required trans-female athletes to lower their testosterone levels. Killips became the first trans-female to win a UCI event. Consistent with British Cycling, it replaced its male division with a ‘men/open category’ which accepts any athlete without restriction who does not meet the eligibility requirements for the female events. Trans-female British cyclist Emily Bridges was banned from elite competition and would consider legal action against the rules, viewing them as a violation of her human rights (Scott 2024).

Following the success of trans-female swimmer Lia Thomas in a female NCAA swim event in 2022, World Aquatics amended its rules to permit only those whose birth sex is female in the female category. An open category for trans-female and non-binary athletes was trialled, which permits athletes to self-identify in unlicensed swim events at a recreational level where the scores and timings will not be officially recorded. However, no participants registered for the open category events at the World Aquatics World Cup in 2023. In its policy, World Aquatics claims to have convened a working group to evaluate the current available scientific and medical evidence relating to sex differences in sport performance and related advantages. The group included an athlete group, a science and medicine group and a legal and human rights group.

From this Scoping Review, six international federations require testosterone suppression as a condition of trans-female participation, five sports do not seem to have an easily available policy, two international bodies operate on a case by case basis and one policy (FIFA) is currently under review.

There are significant inconsistencies between international and national governing bodies. Of the twenty-five sports reviewed, approximately fifteen national governing bodies (the UK was predominantly investigated due to time and capacity) operate a policy that contrasts with the international federation. Whereas World Rowing permits trans-female athletes to compete in the female category if their testosterone levels are reduced to an accepted level for twelve months, British Rowing restricts female events to individuals assigned female at birth, with an open category available to trans-female and non-binary athletes. There is also an opportunity to offer a mixed category in competitions, subject to female eligibility guidelines. World Triathlon rules permit trans-female athletes to compete in female competition if testosterone levels are reduced to an accepted level for a period of twenty-four months. Furthermore, the policy highlights that forty-eight months must pass since the athlete participated in a male event. In contrast, the British Triathlon Federation bans trans-female athletes from competing in the female category over the age of twelve. It introduced an open category for those whose birth sex was male. Even in mind activities with minimal physical exertion, in August 2023, the International Chess Federation (FIDE) temporarily restricted trans-female players from competing in the female only chess events, stating that further analysis is required over the next two years. This position is inconsistent with national federations such as the English Chess Federation who deemed the exclusion as incompatible with English law and potentially

influenced by assumptions about the impact of biological sex differences upon brain performance (Smith 2023; Punch et al 2023).

In powerlifting, the International Powerlifting Federation require testosterone level checks and certification of gender identification prior to competing for trans-female competitors. The Canadian Powerlifting Union previously permitted gender self-identification with no testosterone requirements but in 2023 were forced to adopt a consistent trans policy approach following the success of Canadian trans-female competitor Anne Andres (Richardson 2023). USA Powerlifting do not follow this approach and excluded trans-female athlete JayCee Cooper from competing in female competition (The Associated Press 2024). One governing body, USA Boxing, pursue the Stockholm Consensus and permit trans-females to compete over the age of 18 if they have undergone genital reassignment and submit regular hormone tests for a minimum of 4 years following surgery. The policy has raised concerns not only because of the inclusion of trans-females in the female category (Lundberg et al 2024), but due to the requirement for surgical intervention, which is ethically questionable and has been discontinued in modern policy making.

In this Review, only twelve sports seem to expressly offer an inclusive approach at the national recreational level, with participation and self-identification welcomed and encouraged. In 2003, the German Football Association (DFB) introduced a policy across the amateur and youth levels that allows transgender and non-binary players to choose if they play in the men or women's team, placing inclusion at the heart of sport without impacting upon player safety or fairness (Dawkins 2023). The England Football Association (FA) also prioritise inclusion at the recreational level and permit trans-female inclusion in performance pathways on a case-by-case basis, taking into consideration safety and fairness, and assessing hormone levels. Some limit this inclusion to 'unlicensed' or 'non-competitive' events. Approximately half of the sport policies reviewed provide no easily available formal guidance on recreational participation.

In terms of other options, this Review demonstrates that some sports are introducing open or mixed categories, or replacing the male category with an open category. Whilst open categories do provide opportunities to compete, they hinder the opportunity to compete in a category that aligns with legal gender identity (Devine 2022b: 520).

For DSD athletes, eligibility is much less explicit and distinct guidance is not always available for each sport despite having limited cross over with trans populations (Devine 2022a: 337). From this Review, World Athletics have imposed testosterone suppression requirements with much tighter threshold levels. In its latest update, WA announced that DSD athletes will face tougher conditions to suppress their testosterone levels below 2.5 nmol/L for at least six months and in some events twenty four months. World Aquatics rules apply to both trans-female and 46 XY DSD athletes and require all athletes to certify their chromosomal sex with their national body in order to be eligible. Moreover, athletes can only compete in the female category if they have not experienced male puberty effects and maintain a testosterone level at 2.5 nmol/l. At the national level, karate refers to hyperandrogenism and imposes testosterone levels.

World Rugby committed to developing a separate guideline in 2023 for DSD players. In the meantime, it highlighted that those players should be dealt with on an individual basis

following the key principles of safety, fairness and inclusion, and giving attention to the potential advantages around androgenisation. However, the suppression of testosterone levels in DSD athletes to minimise any potential unfair advantage is critiqued on both science and ethical grounds (examined below). Tennis appears to be one of the only sports to state that where players have been legally and psychosocially recognised as female since childhood (including pre-pubertal sex re-assignments), they are permitted to compete in WTA events. No clear policies were found for the remaining sports in the Scoping Review.

One sport not included in the Review offers an alternative approach which is relevant to football. The Australian Rules Football (AFL) form part of a coalition of Australian governing bodies who collectively contributed to guidelines for the inclusion of transgender and gender diverse people in sport (Australian Human Rights Commission 2019). The AFL operate clear and separate community and elite policies with additional guidance for trans and non-binary participation. The Elite Policy requires trans women and non-binary people assigned the male gender at birth seeking eligibility in elite football to submit an application for approval. The application must include supported medical evidence that their testosterone levels maintain below 5 nmol/L for at least twenty four months prior to the date of the application, and data over the twenty-four month period relating to the height, weight, bench press, squat, twenty sprint time, vertical jump, match GPS data and two km run time. The application is reviewed by an appointed committee with representatives from the areas of high performance, women's football operations, inclusion and social policy, risk, legal, medicine and mental health and anti-doping. The Community Policy appreciates that social inclusion has a greater priority and permits trans and non-binary people to compete in community football competitions in their preferred gender identity.

### **Summary**

This surface-based Scoping Review of a selection of twenty five current sport policies exposes an incredibly complex regulatory landscape. It confirms the trend towards bans and testosterone suppression, which are premised upon notions of biological advantage, safety, and fairness. In terms of satisfactory alternative solutions, open categories have not yet been successful and potentially mischaracterise gender diverse females; testosterone suppression is scientifically and ethically challenged as will be explored below; and it is not yet clear whether the imposition of bans in the female category are necessarily an effective long-term strategy (Windholz 2020: 619).

The Review reveals inconsistencies in the regulation across and within sports at an international, national, community, recreational and educational level. There does not appear to be any common approach to team sports, contact sports, non-contact sports or mind sports. Any rules implemented at the elite level are likely to have repercussions on grassroots and community access to sport (Martowicz et al 2023). The application of rules is also imbalanced, and there is a lack of distinction between trans-female and DSD policies, and whatever is decided for trans-female athletes will also have implications for trans-males athletes (Barras 2024). A further scoping review could be conducted to examine the trans-male policies.

It is evident that working groups form a valuable part of policy making to ensure that decisions turn on fact, evidence and the voices of athletes and experts. The language and approach taken

by policy makers is slowly shifting and there is some appreciation for the nuances of sex and gender with increased engagement with various stakeholders, experts and athletes. However, there is a distinct lack of transparency during the process and an absence of diverse views beyond the science community to contribute effectively to the decision-making process. This presents a challenge for football stakeholders when determining gender eligibility rules.

Table One reveals that the current landscape appears to be incomplete or unfinished, with a great number of information gaps around gender eligibility across all aspects of each sport. Although this absence of information may not mean that it is not available at all, it is certainly not readily accessible. There might be legitimate reasons for this, such as the size of the sport, lack of resources or information, but it does imply a rather piecemeal approach overall.

## **Literature Analysis**

The surface-based Scoping Review has outlined the complex sport regulation of gender eligibility, and the divergent approaches currently being adopted across sports. This section contextualises and evaluates the scientific, human rights, law, lived experiences and ethical perspectives that might impact upon gender diversity and underpin sport regulation (Patel 2025). A cross analysis of competing perspectives has not previously been conducted in this way in the literature.

### **Scientific Evidence**

The obligation to divide men and women and separate gender diverse people in the policies highlighted above, originates from the inherent biological differences between typical men and women and the influence of those variations upon sport performance and athletic advantage. The persistence for certainty that trans-female and DSD athletes enjoy an unfair biological advantage over cis-females appears to be an important sport objective which dominates discussion. However, it is not a settled matter (Sailors 2020: 429).

The justification for exclusion from the female category, demanding testosterone suppression or favouring open/mixed categories is founded upon the common sex differences between men and women and the effect of androgenisation upon secondary sex characteristics which results in higher muscle mass, lower fat mass, greater strength, increased cardiovascular capacity and function, increased haemoglobin and larger skeletal frames (Handelsman, Hirschberg and Bermon, 2018; Lundberg et al 2024; Tucker 2019). It is argued that these physiological differences mean that post puberty, men can compete across sports, particularly in relation to speed, strength, power and endurance, more efficiently than women, and official sport records demonstrate this ability and performance gap (Handelsman, Hirschberg and Bermon 2018; The Parliamentary Office of Science and Technology 2022a; Hilton and Lundberg 2021). During and post puberty, testosterone drives physiological differences relating to primary athletic traits such as body make up, muscle mass, bone skeletal frame, cardiovascular and respiratory systems (Knox et al 2019: 397). It is asserted that although testosterone may not guarantee performance, it creates the potential for an unequivocal benefit and advantage (Tucker 2019; Devine 2022b).

By developing a sport specific understanding of sex in this way, sport is divided into male and female categories to ensure a level of parity and remove the male athletic advantage (Devine 2022a: 336; Cooper 2023). Without a distinct category that excludes any male advantage, it is considered ‘extremely unlikely’ that females would succeed at the elite level because of the size of the male biological advantage (Lundberg et al 2024: 5; Devine 2022a: 336). Even in mind sports, traditional misleading assumptions that men possess favourable intellectual traits such as logic and competition, compared to seemingly emotional women, has obstructed female participation, access and confidence (Punch et al 2023).

Biological science and sport may consider sex and gender as a resolved and fixed matter which is impossible to challenge (Devine 2022b: 503; Kane 1995: 192). However, the participation of gender diverse athletes and the notion of identity as a spectrum, disrupts and enriches this binary division. Indeed, there are potentially more differences within the sexes as there are between them (Punch et al 2023; Blakey 2018 p. 295; Ivy and Conrad 2018; Kane 1995). The social and learned nature of these behaviours also play a crucial part in this debate and it is suggested that the characterisation of women as weaker than any man continues to reinforce sex segregation. At the same time, neither does a stronger female athletic performance fit within the binary structure and becomes excluded (Posbergh 2024: 269; Kane 1995).

### *Trans-female Athletes*

Given this biological basis, it is claimed that medically transitioned trans-female athletes retain male performance advantages in the female category which compromises fair and safe competition (Knox et al 2019: 397). The gender affirming hormone treatment may involve testosterone suppression with oestrogen supplementation for trans women, and testosterone supplementation for trans men (Hamilton et al 2024). It is opined that although testosterone suppression might reduce muscle mass, muscle memory cannot be completely reversed by hormone suppression, and this may also contribute to a performance advantage (Harper et al 2021: 866; Hilton and Lundberg, 2020: 210; Knox et al 2019: 398). Studies underpinning the policies outlined in the Scoping Review, vary between lab-based studies and review papers of existing knowledge, and they are contrasting in design, sample sizes, quality and methods (Hamilton, Guppy and Pitsiladis 2024; The Parliamentary Office of Science and Technology 2022a).

Many sports bodies rely on Hilton and Lundberg to justify exclusion from the female category (2021). They conducted an analysis of the scientific literature relating to anthropometric and muscle characteristics of trans-females. Based on current evidence they conclude that the biological advantage derived from male puberty in relation to muscle mass and strength, is only marginally reduced by testosterone suppression. Lundberg et al further argue that measuring moment in time testosterone levels ignores the permanency and ‘legacy effect’ of physical and physiological advantages of testosterone-driven male development and also are therefore ineffective (2024: 4; Senefeld 2023). They assert that testosterone suppression cannot minimise height or skeletal frame that could provide a performance advantage in particular activities.

Although this work has been used to support many sport policies, a cautious approach is advised by Hamilton, Guppy and Pitsiladis who outline its key quality and evidential limitations (2024). A recent laboratory performance-based study comparing the strength, power and aerobic capacity of trans-male and trans-female athletes with cis-male and cis-female athletes, found advantage in some areas but lower performance in trans-females than cis-females in several aspects measured, which suggests a much more complicated situation (Hamilton et al 2024). Hamilton et al emphasise that long-term longitudinal studies are necessary to confirm whether the findings are directly related to gender affirming hormone treatment (2024). Further research is necessary to explore the impact of other physical factors upon performance and the effects of the transition process on physiological traits. Harper et al



posit that although performance related variations between men and women are certainly quantifiable, they are less certain between trans-females who have received gender affirming hormone treatment and cis-female women (2021; 865).

In reality, the current data is limited because the field is expanding but remains in its infancy and there are few robust studies specifically examining the influence of gender affirmation treatment on sport performance in trans athletes (Hamilton, Guppy and Pitsiladis 2024; Martowicz et al 2023: 29). The gender affirming journey and its impact upon performance in sport and retained attributes, significantly differs for each individual (Martowicz et al 2023). The trans population engaging in high levels of physical activity is very low and dedicated research on trans athletes is not yet readily available. Indeed much of the research underpinning the policies outlined above rely on non-athlete and non-elite trans populations undergoing medical transition (The Parliamentary Office of Science and Technology 2022a; Martowicz et al 2023: 29). Moreover, some studies use cis-males to compare and draw inferences about trans-females. Both approaches are considered inappropriate and inaccurate because the groups are not similar (Hamilton, Guppy and Pitsiladis 2024: 239; Martowicz et al 2023: 29). Conversely, it is argued that the current evidence from non-athlete populations is relatable to elite competition because ‘it confirms the principle of persistence of biological characteristics even in the absence of training’ (Lundberg et al 2024: 4).

Although the trans population is increasing in visibility, it is likely to take longer to generate data on trans athletes and even at that point this may still not provide certainty over advantage. Some maintain that despite this absence of robust data, that does not mean the broad findings are not relevant (The Parliamentary Office of Science and Technology, 2022a; Lundberg et al 2024: 6). In the interim, it may be instead necessary to make a leap of faith and draw strong inferences from the existing biological research, which may imply that trans-female athletes enjoy an unfair advantage in the female category and should therefore be restricted from competing to protect fair and safe competition (Hilton and Lundberg, 2020: 211; Lundberg et al 2024). However, there is a lack of clear and consistent evidence demonstrating an unfair advantage, and performance in sport is more intricate than is presented in the current research (Ivy and Conrad 2018). Poor recruitment, dropout rates, restricted funding and few research groups may also limit knowledge in this area (Hilton and Lundberg 2021; Handelsman, Hirschberg and Bermon 2018; Ordway et al 2023; The Parliamentary Office of Science and Technology 2022a). It is commonly accepted that improved research is required to examine the retention of performance advantages post transition and carefully construct accurate gender eligibility policies. Further research is also necessary in team environments such as football, where advantage will vary greatly (Ordway 2018: 18).

Given this lack of consensus on the appropriate way to regulate, it may therefore be considered unlawful to exclude trans-female athletes from competing in alignment with their gender identity based on conflicting evidence (See Knox et al 2019). The over emphasis on the biological and scientific aspects of performance, detract from other sporting values and influences such as inclusion and diversity, training, discipline and mental toughness (Gleaves and Lehrbach, 2016: 315; Kane, 1995: 201). The IOC Framework encourages sports bodies to

produce quality and specific research to inform gender eligibility rules relevant to their sports rather than rush to conclusions that may cause more harm than is necessary (Hamilton, Guppy and Pitsiladis 2024). Nevertheless, it may be argued that as the science develops, an interim solution is required (Sailors 2020: 428).

### *DSD Athletes*

The cases involving Dutee Chand and Caster Semenya signify the specific challenges facing the participation of DSD athletes. It is argued that those with elevated levels of testosterone derived from a DSD trait, benefit from an unfair advantage over typical females in relation to strength, speed, stamina, power and training capacity (The Parliamentary Office of Science and Technology 2022b). In order to preserve the fairness and safety of competitors, some sport policies tend to require suppression of hormone levels through hormone therapy, surgical interventions or participation in the male/open events, as evidenced by the Scoping Review.

Whilst it is generally accepted that male testosterone levels are usually higher than women, which may result in enhanced athletic performance in particular capabilities such as strength and speed (Loland, 2020: 585), the association between testosterone and performance continues to be debated and although the significance of testosterone in performance is quantifiable (Tucker 2019), it is unclear exactly how that impacts DSD traits and to what extent testosterone may confer an unfair advantage in any given sport (Bianchi 2019: 5; Torres, Frias and Patino 2022: 36; Loland 2020: 587; Sonksen et al 2018). DSD is a spectrum of variations and not everyone benefits from testosterone in the same way. Given these variations, it may be misleading to apply a homogenous policy to DSD athletes.

In the case of Chand, (*CAS 2014/A/3759 Dutee Chand v. Athletics Federation of India (AFI) and The International Association of Athletics Federation (IAAF)*), CAS held that more evidence was required to prove advantage, granting WA two years to prove advantage for hyperandrogenic athletes. WA commissioned research by Bermon and Garnier who concluded that female athletes with elevated testosterone levels have a substantial performance advantage in particular events (2017). WA introduced the Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development (DSD)) 2018 which switched from general testosterone limits to specific female athletes and specific events. The 2018 Regulations require ‘biologically male’ athletes with 46 XY DSD, who have naturally excessive testosterone levels, to reduce their level through hormone treatment. Semenya was prohibited from competing under these rules and further restrictions were imposed under the 2023 WA amendments. However, DSD identities are not easily categorised or characterised which makes the singling out of 46 XY DSD and the application of the 2018 Regulations complicated (see Bowman-Smart et al 2024). Moreover, the evidence underpinning the 2018 Regulations and the inferences drawn from the studies is disputed and a correction was published by the Bermon and Garnier, admitting that the relationship between high testosterone and enhanced performance was ‘exploratory’ and ‘cannot be used as confirmatory evidence for the causal relationship but can indicate associations between androgen concentrations and athletic performance’ (Bermon and Garnier 2021) (Tucker 2019; Cooper 2023). Indeed, some

studies find no relationship between blood testosterone levels and sports performance (The Parliamentary Office of Science and Technology 2022b).

Much like the research for trans athletes, the investigations are diverse and adopt varied methodologies and approaches, with few agreed conclusions (The Parliamentary Office of Science and Technology 2022b). The DSD population is low which means that there are few participants to conduct accurate and consistent studies. This impacts upon the reliability of current research and there is insufficient evidence on performance advantage and testosterone impact to accurately develop binding policy in this area. The effect of testosterone levels on performance cannot be assumed because there are significant variations between cisgender populations, trans people and DSD people and the influence of testosterone in each activity will vary across individuals and sports (Martowicz et al 2023; Torres, Frias and Patino 2022: 36). If it is accepted that an advantage exists, the magnitude of that advantage continues to be debated (Tucker 2019; Harper 2017: 143). Overall, the inconclusive correlation between sex categories, the effects of testosterone on DSD athletes, sport performance, advantage and gender diversity, makes the sole reliance on science in policy making less compelling (Patel, 2024).

Binary categories may be necessary for securing equality of opportunity and fair competition between men and women but it is also argued that invasive medical interventions not designed for sporting competition (such as hormone suppressing treatments and surgical removal of testes) go far beyond what is necessary to protect categories, minimise advantage and maintain fairness (Bowman-Smart et al 2024: 30; Sailors and Weaving 2020: 10). Instead, there could be significant long term health risks and breaches of bodily autonomy and consent (Martowicz et al 2023; Sailors and Weaving 2020: 10; Bowman-Smart et al 2024). The use of medical care for DSD individuals is not universally agreed and depends entirely on the circumstances of the individual. Sex variations may exist without the knowledge of an individual and might only become apparent after targeted testing which raises further ethical challenges for sport (Martowicz et al 2023). DSD individuals may be entirely healthy people but are treated as patients for the purpose of sport eligibility (Tucker 2019).

The World Medical Association recognised these medical and ethical concerns by affirming its position against the use of medical treatment for the purpose of altering sport performance (World Medical Association 2019). The United Nations made an amicus curiae submission to CAS in *Semenya v IAAF* about the compatibility of the eligibility rules with international human rights norms. Furthermore, the United Nations Human Rights Council (UNHRC) reinforced this concern (UNHRC Resolution 40/5) (UNHRC 2019), condemning gender discrimination in sport, in respect of athletes with variations in sex characteristics (DSD). In 2020, the UN High Commissioner for Human Rights published a report placing further obligations on States to redress human rights abuses through the application of pressure on sports bodies. The report emphasises the potential violation of other rights beyond discrimination, including the right to freedom from torture and other cruel, inhuman or degrading treatment or punishment, the right to work, the right to the highest attainable standard of physical and mental health, the right to sexual and reproductive health, the right to

privacy and the right to respect for the dignity, bodily integrity and bodily autonomy of the person (UNHRC 2020).

### **Human Rights Considerations**

Another important consideration that may well be overlooked or given less priority than the scientific aspects, is the role of human rights, and to what extent the rights of gender diverse and cis-female athletes need to be weighed against the pursuit of competitive parity. Sport remains one of only a few industries where gender segregation and discrimination are expressly practiced which makes it onerous to shift embedded practices.

There are ongoing wider debates around whether sport constitutes a human right and how human rights apply to athletes and sports bodies (Ordway et al 2023; Delaney and Madigan 2023; Parry and Martinkova 2021: 1488). Even if the scientific debate above was conclusive, excluding gender diverse athletes is potentially incompatible with legal and human rights frameworks concerning human dignity, bodily integrity, self-determination, privacy, non-discrimination and consent located within a range of international human rights instruments. One view is that denying gender diverse athletes access to sport is a violation of human rights because it deprives them of the physical, mental and social benefits of inclusion (Pharr and Lough 2023: 146). At the same time, the inclusion of trans athletes in female categories is said to violate the human rights of cis-females and the protection of their rights are being neglected. Although sports bodies have the autonomy to prioritise its fundamental values according to its own sport, this cannot be executed beyond the boundaries of law and ethical constraints (Cooper 2023).

There has been a steady rise in the call for firmer protection and recognition of athletes' human rights, including an extension of rights to apply to a wide range of gender identities. The global anti-discrimination campaigns, such as the Black Lives Matter movement, has significantly increased the visibility of athlete activism against prejudice. Outside of sport exists a robust framework of international, regional and domestic human rights provisions which prohibit discrimination on the grounds of sex or other status, with extended scope of those commitments to gender identity in some areas. The right to equality and freedom from discrimination on the basis of characteristics including sex or 'other status' is internationally recognised in the Universal Declaration of Human Rights 1948 (UDHR). Article 1 UDHR states that 'all human beings are born free and equal in dignity and rights.' It is endorsed that gender identity would be captured within the bracket of 'other status' or that 'sex' is extended to cover biological characteristics as well as the social construction of gender (Patel 2022). The Yogyakarta Principles Plus 10 (supplementing the Yogyakarta Principles 2006) encourage states to adopt human rights for gender diverse people by expanding the scope of international human rights law to capture broader aspects of sexual orientation and gender identity. The Convention on the Elimination of All Forms of Discrimination Against Women 1979 (CEDAW) (Article 10(g)) is one of the only provisions that promotes non-discrimination and gender equality in sport for women (Blakey 2018).

The practice of sport without discrimination of any kind is acclaimed by the United Nations (UN) as a human right that is embedded within the international human rights framework (United Nations 2023). The UN recognise the application of these principles to physical education in the United Nations Education, Scientific and Cultural Organisation's (UNESCO) International Charter of Physical Education, Physical Activity and Sport 2015, which affirms the practice of physical education and sport as a fundamental right for all, and introduced gender equality, social inclusion, non-discrimination and sustainability.

It is noted that such provisions do not differentiate between recreational and elite level sport (Ordway et al 2023: 4). Previous concerns voiced by the UNHRC about the compatibility of sport gender rules with human rights principles (UNHCR 2019; UNHCR 2020), were again raised by the UN in 2023, who issued a condemning policy position identifying the persistence of discrimination and discriminatory practices against women, girls, gender identities and sex characteristics. The position calls States, international sports bodies, athletes and wider stakeholders to continue to recognise international human rights law and standards, without discrimination in the context of sport (United Nations 2023). Sport has the capacity to celebrate human differences and recognise the unique qualities of the human body. Since gender identity is recognised within the human rights framework, any restriction to the 'right of a woman, including trans-female or DSD, to compete in sport as a part of her right to take part in cultural life, should therefore be determined by law, comply with the strict criteria of necessity and proportionality, and should represent the least restrictive measure to reach a legitimate aim. This is the human-rights based test that must be met in order to consider the exclusion of any person from participation in sports' (United Nations 2023).

The rhetoric of the UN and its call to protect trans and DSD people from harms caused by gender eligibility in sport, is a persuasive one. However, its influence and enforceability in sport and sport arbitration has been tested to a degree in the Caster Semenya case. In 2018, South African runner Semenya challenged the WA 2018 Regulations on both legal and scientific grounds after failing to satisfy the rules. She claimed that the rules constituted birth, sex and gender discrimination (Patel 2021). Semenya is female and was raised as female. For the purpose of sport, she was described as biologically male. The CAS Panel departed from the Chand decision and held that the 2018 Regulations were discriminatory, but were a necessary, reasonable and proportionate means of achieving the aim of protecting female athletes in certain events (*CAS 2018/O/5794 Mokgadi Caster Semenya v. The International Association of Athletics Federation (IAAF) and CAS 2018/O/5798 Athletics South Africa v. The International Association of Athletics Federation (IAAF)*). Semenya transcended the sport regulatory system and appealed to the Swiss Federal Supreme Court (SFT), but this was rejected, holding that the CAS decision was compatible with principles of Swiss public order (Chanda and Saha 2022). Semenya appealed to the European Court of Human Rights (ECtHR), challenging the compatibility of her human rights with the WA 2018 Regulations (*Semenya v Switzerland 10934/21*). The ECtHR were tasked with determining whether Semenya had effective institutional and procedural safeguards available to her in the form of access to the ordinary courts, so that she could lodge her complaints, which concerned serious claims of discrimination. In July 2023, the Court ruled that the Swiss State had not provided a sufficient

or thorough review of those complaints in the context of Convention rights. The Court found that there had been a violation of ECHR Article 14 (prohibition of discrimination), taken together with Article 8 (respect to private life), and a breach of Article 13 (right to an effective remedy), by failing to secure those safeguards in the review of Semenya's case. The Court highlighted that Semenya complained of the violation of her Convention rights to the CAS and the SFT but neither reviewed those matters sufficiently, owing to its limited powers.

The ECtHR judgment concerns the procedural aspects of Semenya's case and whether Convention requirements had been satisfied in the review of the case. It is not a ruling directly on the WA 2018 Regulations. It may well have implications in the future, but this is unknown at the time of writing. In November 2023, the case was referred to the Grand Chamber of the ECtHR, following the request by the Swiss Government (European Court of Human Rights 2023). This is new legal territory, and it is difficult to predict the next route as we navigate the relationship between private sport arbitration, regulation, and human rights obligations. If the ECtHR decision stands, ordinarily the case may revert to the SFT to re-open the proceedings. It is unlikely that WA will unilaterally alter its gender rules to align with human rights principles, but sports bodies may wish to take account of the force of the judgment on future policy making (Shahlaei 2023; Patel 2023). The judgment provides important analysis for the compatibility of sports rules and arbitration, with human rights, as well as the governance of sport and the responsibility of the State (see generally Rigozzi 2020). It is also a case where 'private and public interests of society, biology, gender, sex, medicine, ethics, fair competition and human rights collide' and the law is interpreted harmoniously with other relevant perspectives for a better development of law (Rietiker 2020: 68). The legal human rights framework does not automatically bind private actors such as sports bodies who tend to operate independently, exerting authority that is at times inconsistent with the societal or legal trends. Sport rules remain untested against the human rights standards outlined previously, with limited enforceability (Grell, 2018). The legal accountability and the impartiality of private sport arbitration is slowly being scrutinised particularly in relation to athletes' rights as more athletes initiate legal action against gender eligibility rules. The Semenya case goes some way to expand this inquiry (Patel, 2021; West, 2019).

It is increasingly evident that sports bodies are aware of human rights obligations and are attempting to embed commitments within their statutes, regulations and charters, as evidenced in the Olympic Agenda 2020 + 5 (International Olympic Committee 2021; CAS 2023). For example, the United Nations Guiding Principles on Business and Human Rights 2011 (UNGPs), are aimed at all states and businesses, irrespective of their size, sector, location, ownership and structure (United Nations 2011). The UNGPs seek to set an expected global standard for remedying human rights abuses linked to business activity. Some sports bodies make explicit reference to the UNGPs (Rietiker 2020: 70). In addition, the UN Sustainable Development Goals (SDGs) call for global action to protect the planet and promote prosperity. It is recognised that sport plays an intrinsic role as an enabler of sustainable development and in realising the seventeen SDGs. At the very least these impose moral obligations that should not be sidelined, particularly during gender eligibility drafting (Rook and Heerdt 2023).

FIFA is a Swiss association, incorporated and regulated under the Swiss legal code. It is the global authority and regulator for football with profound public and economic sway (Duval and Heerdt 2020: 2). FIFA demonstrates a strong commitment to human rights in a number of ways (See Krech 2020: 13). Firstly, FIFA commissioned an independent report, The Ruggie Report, to audit human rights and understand what it means to embed human rights across its global activities and practices, using the UNGP's as a key benchmark. The Report emphasises that although FIFA has implemented statutory and regulatory prohibitions against discrimination in football, gender discrimination continues to be an endemic human rights challenge for FIFA (Ruggie, 2016: 24). The Report sets out twenty-five practical recommendations to FIFA to ensure human rights are respected and many of them have been actioned (Ruggie 2016). The UNGP's provide FIFA with helpful guidance on respect for human rights and its human rights activities demonstrate a commitment to them (Rietiker 2020: 70).

Secondly, Articles 3 and 4 of the FIFA Statutes were amended to expressly commit to the protection of human rights and non-discrimination. Article 3 states that, 'FIFA is committed to respecting all internationally recognised human rights and shall strive to promote the protection of these rights' (FIFA, 2022). Article 4 explicitly prohibits discrimination on the grounds of gender. Thirdly, the FIFA Human Rights Policy expands upon this statutory commitment and outlines FIFA's implementation in accordance with the UNGPs. The Policy outlines the four-pillar approach to human rights which includes commit and embed, identify and address, protect and remedy, engage and communicate. Fourthly, developing upon this, amendments were made to the bidding regulations for the World Cup tournament, which incorporates human rights standards and requirements for candidates.

Fifthly, the FIFA Human Rights Advisory Board (HRAB) operated for seven years to strengthen the respect for human rights and to advise, support and offer expert guidance to FIFA. It submitted its final report in 2021 which outlines the progress over the previous four years and highlights areas for development and improvement including the protection and promotion of women in football.

Another final example of alignment between FIFA and human rights is the special Memorandum of Understanding signed between FIFA and the Council of Europe in 2018. Although not legally binding, the agreement seeks to 'create a framework for strengthening and further developing synergies, co-operation and, where appropriate, partnerships between the Parties' (Council of Europe 2018 Article 2). Given the relevance of many treaties to sport, this Memorandum aims to promote gender equality by encouraging a 'gender sensitive approach in policies and measures and countering gender stereotypes and sociocultural barriers' (Council of Europe 2018 Article 2.1.1). It emphasises the access of football for 'all citizens, regardless of gender, race, age, disability, religion, nationality, sexual orientation and social background. Diversity must be promoted in and through sport and any kind of discrimination- either institutional or social- must be rejected' (Council of Europe 2018 Article 1.1). In terms of action, the agreement calls for appropriate measures to protect the human dignity of athletes, increased co-operation between stakeholders to combat discrimination,

increased co-ordination between public authorities and sports bodies to address these issues (Council of Europe 2018 Article 1.5). Good governance and exchanging best practice is also encouraged throughout the Memorandum.

The commitment to human rights across all aspects of FIFA indicates a firm obligation to comply with its own standards and this should extend to gender diversity (Butzler and Schoddert 2020; Krech 2020: 24). As mentioned, there are ongoing debates around the enforceability of these human rights guarantees, given the seemingly private status of FIFA and the general vacuum within which sport tends to operate (Duval and Heerdt 2020; Butzler and Schoddert 2020: 53; Hock and Gomtsain 2018: 186; Ruggie 2016: 26). That said, given the growth in sport legal challenges and disputes, it is suggested that it might be beneficial for FIFA to be aware of the relevance of developing case law of the ECtHR to its own frameworks if human rights commitments are to be realised (Rietiker 2020: 63, 104). The ECtHR has received applications in football related cases but none have directly concerned violations by FIFA (Rietiker 2020: 79, 103). It is conceded that it is not the task of FIFA alone to respect, protect and guarantee human rights in sport. Governments share an equal responsibility to ensure compliance and order under their jurisdictions (Ruggie 2016: 36).

### **Law and Sport**

An inextricably linked aspect is the impression of the law upon the actions of sports bodies and its relationship with sport, sex and gender. There are indeed parallels to be drawn between the binary sex divisions of men and women in sport and the traditional problematic binary nature of legal systems and societies (Cooper 2023). Outside of sport, the status of gender diverse people is under review, particularly in relation to legal sex and gender, gender identity, the validity of medical interventions and bodily integrity (Scherpe 2015; Scherpe, Dutta and Helms 2018).

Some differences exist between international and domestic gender laws (Larson 2011: 247). At a domestic level, legal gender status has been addressed in some countries, with Germany for example discontinuing with the legal gender binary, as advocated in a range of international and domestic declarations and statements (Scherpe, Dutta and Helms 2018). The UK has been historically advanced in the recognition of equality and non-discrimination. The Equality Act 2010 (EA) consolidates previous legislation and applies to protected characteristics which include gender reassignment and sex. The Gender Recognition Act 2004 (GRA) affords trans people the right to apply for legal recognition of their acquired gender (s. 1(3) and Schedule 1 GRA) (see Fairbairn, Gheera and Pyper 2020).

As legal gender status reform and progression is taking place, the application of non-discrimination domestic provisions in the context of gender and sport is being analysed. The exemption clauses commonly located within equality legislation serve to limit the scope of the protection and provide an exception for sporting activity. In the UK, the Sex Discrimination Act 1975 (SDA) deemed it unlawful to discriminate on the grounds of sex. Amongst the exceptions to this general position was Section 44 SDA which stated that, 'Nothing in Parts II-



IV shall in relation to any sport, game or other activity of a competitive nature where the physical strength, stamina or physique of the average woman puts her at a disadvantage to the average man, render unlawful any act related to the participation of a person as a competitor in events involving that activity which are confined to competitors of one sex.’ Events of this nature were lawfully confined to one sex, regardless of age or personal attributes of the individual.

This exemption was echoed in Section 19(2) GRA which read, ‘ body responsible for regulating participation of persons as competitors in an event or events involving a “gender affected sport” can prevent a person whose gender has become acquired under the 2004 Act, from participation,’ thereby justifying discriminatory treatment. A sport was gender affected if ‘the physical strength, stamina and physique of average persons of one gender would put them at a disadvantage to average persons of the other gender’ (s. 19(4) GRA).

The EA replaced the SDA and s. 19 GRA was repealed by Section 195 EA which captures the essence of previous exemptions and allows sports bodies to discriminate on the basis of sex and lawfully divide sport in the context of a ‘gender-affected activity.’ Furthermore, discrimination on the basis of gender reassignment is permissible for the ‘participation of a transsexual person as a competitor in a gender-affected activity if it is necessary to do so’ to protect fair competition or the safety of competitors. A gender affected activity is defined as ‘a sport, game or other activity of a competitive nature in circumstances in which the physical strength, stamina or physique of average persons of one sex would put them at a disadvantage compared to average persons of the other sex as competitors in events involving the activity.’

The sport exemption has developed over time but largely retains its original form in the SDA, with frequent references to strength, stamina, physique and average persons. Section 195 EA has been used by sports bodies to justify exclusion from the female category. For example, in the Semenya case WA relied on general exemptions to argue that they are beyond the reach of the law because domestic courts would not deem the 2018 Regulations to be in contravention with public policy and instead, civil and common law legal systems offer a margin of appreciation to sport bodies when determining what is necessary and proportionate to achieve legitimate objectives (Patel 2021).

At the same time, it is also claimed that gender inclusive sport policies violate the EA because they place cis-women at a disadvantage to men and are likely to make competition unfair and unsafe (Cunningham and McAnena 2023). It is advocated that the ‘true position’ is that s. 195 EA makes it lawful to divide according to sex and to exclude males from female events, including those who are legally recognised as female under the GRA (Cunningham and McAnena 2023). Although sports bodies may risk potential legal claims from gender diverse athletes who are excluded from competing in the female category, this view advances that there is equally a threat of indirect discrimination claims by cis-women who may maintain that including trans-female athletes threatens fair and safe competition. The reference to average females is justified because it ‘captures all values in a set and consequently represent the whole category not just the middle’ (Devine 2022b: 514). However, the references to the ‘average’

female athlete leads back to a generalised biological view of a typical man or woman, which does not entertain overlaps between the groups or the prospect of a female who might surpass the average boundaries and succeed in male categories (Cooper 2023; Patel 2015).

One of the problems with the reliance on s. 195 EA is that it is founded upon outdated legislation. Section 44 SDA was considered ‘dead law’ because of its unclear objective, inconsistent definition and application, with little debate during the passing of the SDA. Section 44 SDA was predicated on misguided assumptions about women and resulted in the mistreatment of girls and women competing in female or male sports, or even sports labelled as masculine. The ambiguity of the phrasing and failing to specify circumstances in which the average strength, stamina and physique of a person would disadvantage participants, with no quantifiable evidence, led to the call for an abolishment or amendment to the provision (Patel 2015; Burke 2010: 21). Similar confusion over the wording and legal interpretation of sport exemptions has been experienced in other countries such as Australia (Windholz 2020: 600; Blakey 2018; Burke 2010). It is questionable who should determine strength, stamina and physique in each sport, and whether the law is protecting or damaging rights for average female athletes and gender diverse athletes (Blakey 2018: 303; Burke 2010).

It was previously argued that the defence should no longer apply and should not be used as a model for further legislation (Patel 2015). However, the same sentiment is not felt in relation to the EA which adopts the exemption and applies to trans people to explain when a sport is ‘gender-affected’ in order to determine inclusion or exclusion.

The UK Government has not formally intervened in gender eligibility in sport and its compatibility with the EA, but the UK’s Sports Councils published Guidance for domestic sports bodies on producing policies, following recommendations from the Women and Equalities Committee that sports bodies in the UK required more support on this matter (Women and Equalities Committee 2021). The Guidance concluded that trans athlete inclusion, fairness and safety cannot be reconciled and there is no universal approach (UK Sports Councils 2021). Sports bodies were therefore encouraged to identify the priorities for their sports and develop rules in accordance with their own decision-making framework and the EA, finding alternative ways to increase inclusion. The Guidance benchmarked the EA as a standard for achieving inclusion and participation but recognising the protection of binary categories and the impact of ‘gender affected’ activities. In April 2024, the former UK culture secretary convened a meeting of national sports bodies to discuss trans policies across sports, urging them to take an ‘unambiguous position’ on the exclusion of trans-females from the female category (O’Reilly 2024). An observation from these brief Government contributions is that there does not appear to be any formal Government-led research underpinning these opinions, yet they are impactful, high profile and could negatively influence the debate if they are not appropriately informed. There is a danger that sports bodies get drawn into political agendas which may cause friction and distract from effective and responsible regulation of gender eligibility.

The exemption needs urgent review and reform in light of current understanding and developments of sex and gender. It is accepted that there is a need to ensure that women can excel and participate in sport given historic barriers, but there is a danger that a generic sport exemption misinterprets sex and gender and ignores the nuances. Any exemption must also be interpreted in conjunction with human rights provisions outlined above.

In the USA, there is tense legal conflict around trans athlete inclusion in education and professional sport. On the one hand, a key source of US equality law is Title IX of the Education Amendments Act 1972 (Title IX) which prohibits sex discrimination in educational institutions and historically generated great opportunity for women and girls in sport. There are formal proposals to amend Title IX to expressly include gender identity, although the courts have interpreted sex widely to encompass gender identity. Conversely, several States have sought to enact laws limiting access to sports and healthcare for trans people. An increased number of States have prohibited trans athletes from competing in sport even when the trans athlete population is limited or non-existent (Pharr and Lough 2023: 136). Such restrictions may negatively affect health and well-being of gender diverse youth (Barrera 2022). It is suggested that bans are also being considered at federal level (Pharr and Lough 2023: 139). With a limited universal approach, this has resulted in a piece meal collection of policies across States, educational settings, community and club sports and professional sports, ranging from no formal policy, gender self-identification, conditions on hormone treatment exposure and testosterone levels, mandatory medical and legal requirements, sex determined at birth evidence, or application of international guidance. Title IX has been used as the basis of legal cases brought by cis-female athletes against the inclusion of trans-female athletes, and to defend claims against anti-trans athlete legislation. Trans student athletes are being perceived as a threat to female sports, depriving cis-females the opportunity to participate in sport (Pharr and Lough 2023: 142).

Significant attention has been placed on US swimming following trans-female swimmer Lia Thomas who previously competed in male NCAA (National Collegiate Athletic Association) swimming events. Following her transition and two years of gender reaffirming hormone therapy, Thomas satisfied eligibility rules and was permitted to compete in the female NCAA swimming category (Senefeld et al 2023). Controversy surrounded her success and performance times, which prompted rule changes by World Aquatics. Its current policy prohibits her from competing in the sport any further. In January 2024 CAS confirmed arbitration proceedings brought by Thomas against World Aquatics gender eligibility policy, claiming that they are unlawful, discriminatory, and violate the Olympic Charter, the World Aquatics Constitution, Swiss law, the ECHR and CEDAW. Furthermore, they argue that such discrimination is not necessary, reasonable, or proportionate to achieve a legitimate sporting objective (CAS 2024).

To date, few athletes have challenged the legality of gender eligibility rules because of the authority of CAS in the private sport regulatory system and the contractual restrictions placed upon athletes which have limited the gender cases that have appeared before the domestic and regional law courts. Semenya was the first to go beyond sport in this respect. However,

Hamilton, Guppy and Pitsiladis assert that it is no surprise that legal challenges have escalated as a result of the policies (2024). In *Worley v Ontario Cycling Association* (2016), a trans-female Canadian cyclist argued that the cycling governing bodies breached Ontario human rights law after subjecting her to gender verification testing, under the IOC Stockholm Consensus. The Human Rights Tribunal of Ontario, Canada supported the claim which led to a settlement with the sports bodies who agreed to use objective independent scientific research in the establishment of standards and guidelines for trans-female athletes. In *Dr Renee Richards v United States Tennis Association* 400 NYS 2d 267 (1977) a trans-female tennis player brought a claim against the USTA who forced her to pass a sex test. The Court concluded that the mandatory genetic test was discriminatory and a breach of New York state human rights. However, this case had limited force on gender rights in sport beyond this decision. In 2021, trans-female powerlifter JayCee Cooper brought a legal discrimination claim against USA Powerlifting for prohibiting her from competing in the female category. The district court initially agreed that the governing body had violated human rights laws and anti-discrimination laws by denying her entry on the basis of her gender identity. However, following appeals, in 2024 the case was overturned and reverted back to the lower court for review. In 2023, successful trans-female disc golfer Natalie Ryan brought legal proceedings against the Professional Disc Golf Association (PDGA) who introduced a ban on trans-females from competing in female competitions. Natalie claimed that this policy constituted discrimination based on gender identity and gender expression. In 2024, a settlement was reached and the PDGA agreed to remove the gender eligibility rule and permit athletes who have undertaken at least two years of gender affirming hormone treatment. In 2022, the Kerala High Court in India held that in the absence of a separate category in sporting events for trans individuals to participate in, they must be permitted to participate in the category of their choice (*Anamika v State of Kerala and Others*).

Much of the literature has examined this debate through the lens of human rights, equality and anti-discrimination law. Windholz encourages an investigation of health and safety at work laws and their application to sports bodies. Health and safety law is focused on mitigating risks rather than ‘over-regulating’ activities (2020). The suite of health and safety provisions place positive duties and obligations upon sports bodies to protect all athletes and mitigate physical and psychological risks associated with participation in sport where reasonable to do so. Although this is an untested approach, Windholz argues that this perspective facilitates a balanced way of addressing gender eligibility in sport, rather than pitting rights against each other as is presently the case (Windholz 2020: 623).

Overall, the law can act as a mechanism for ensuring that sport policies are fair and just, rather than perpetuate assumptions that are broad and vague. Sports bodies are keen to avoid liability and litigation which does make this a legal matter as much as a science matter. That said, it is the responsibility of law makers to reform sport-related exemption provisions to acknowledge the nuances of this matter and to reflect updated knowledge of science, human rights, lived experiences and ethics for gender diverse athletes. This will improve regulation overall.

### **Centralising the Athlete**

Mostly absent from the gender eligibility debate is the voices of all athletes who are directly impacted by the policies. Some sports bodies seem to note the representation of one or two athletes in their working groups but there is an obvious absence of qualitative research which directly examines the experiences of those affected. Instead, gender diverse and cis-females are homogeneously grouped and pitted against each other in the media to exaggerate a division that does not necessarily exist. Often the loudest figures or boldest statements dominate attention without being the most informed in this field. A handful of former elite athletes have publicly shared their views on trans and DSD athletes competing in the female category, and whilst everyone has the freedom to express concerns, at times the tone of such comments has obscured the true nature of the issue (Teetzel 2020). This polarisation results in key parties such as athletes, specialists and academics hesitant to speak out and offer their expertise, fearful of receiving online hate and abuse (Teetzel 2020). Both Chand and Semenya revealed the prejudice that they faced during their cases, as well as the physical, psychological, social and political harms suffered from the WA eligibility requirements (Bekker, Storr and Psobergh 2022; UN 2023; Martowicz et al 2023). The UN express its concern around the targeting of trans and DSD people on social media and its link to their ‘sense of self and bodily autonomy, and as those actions impact their physical and mental integrity’ (United Nations 2023).

It is well established that sport and exercise provides long term physiological, social and mental benefits from an early age (Barrera 2022; Schweizer et al 2023; Jones et al 2017). Participation in team activities can for instance, improve sense of belonging and reduce social anxiety (Pharr and Lough 2023: 137). Sport enables social development and social mobility, providing employment at the higher levels and access to education in some countries (United Nations 2023). However, in comparison to men, participation rates remain low amongst girls and women. Physical activity is comparatively lower amongst gender diverse groups such as trans people (Schweizer et al 2023; Jones et al 2017; Jones, Haycraft et al 2017), especially youth who are likely to experience physical and mental concerns that might be improved by access to sport participation (Pharr and Lough 2023; Barrera 2022). Consequently, this is already a marginalised space for the athletes affected by these rules, with existing barriers that limit access and opportunity.

### *Gender Diverse Athletes*

Outside of sport, gender diverse individuals experience social disadvantages and discrimination (Posbergh 2024: 265). Research exploring the physical activity behaviours of gender diverse groups are limited, compared to our understanding of participation factors influencing the cisgender population, which is already minimal (Schweizer et al 2023). The experiences are also completely varied and dynamic, it cannot be assumed that they are the same (Barras 2024). There is less research exploring the experiences of DSD people in sport because many are unaware of a DSD trait until it is discovered upon testing at the elite level (Piggott 2020).

Studies have identified positive and negative experiences of trans people participating in sport. Sport can be affirming for trans people and a positive place to celebrate their identity and feel

included (Barras 2024). Facilitators to participate physical activity include body satisfaction, motivation to engage in sport and gender congruence (Jones et al 2017; Schweizer et al 2023; Barras 2024). The media attention and panic around their inclusion distracts from the ultimate desire of trans people continue with their everyday lives without disruption (Barras 2024).

Negative barriers range from fear of prejudicial and discriminatory treatment, violence and harassment to inadequate changing facilities, lack of acceptance, lack of safe space to comfortably participate (Jones et al 2017; Schweizer et al 2023; Barras 2024; Barrera 2022; United Nations 2023). Trans and DSD athletes are more likely to experience prejudice such as transphobia, harassment, victimisation and bullying by colleagues, coaches and spectators when taking part in sport (Pharr and Lough 2023: 137; United Nations 2023). The negative discourse around gender eligibility is harming the physical and psychological well-being and health of gender diverse groups who may experience mental health challenges such as depression and suicidal feelings due to the discriminatory environments that they face in all aspects of their lives (Pharr and Lough 2023: 144; Proud and Thriving, 2021; Schweizer et al 2023). It is argued that this prejudice and stigmatisation leaves LGBTQ+ youth to 'navigate compromised social support networks and dysfunctional healthcare systems and endure significantly higher rates of mental distress and self-injury than their cisgender and/or heterosexual peers' (Proud and Thriving, 2021).

At the elite level, trans athletes have spoken about their mistreatment, accusations of transitioning for fraudulent reasons, labelled as cheating and a danger or threat (McKinnon 2019; Thorpe et al 2021; Posbergh 2024). When trans-female and DSD athletes have complied with eligibility requirements to compete, they have still been subject to abuse, which may reveal more about the essence of the problem which is whether there is a place for gender diversity in sport at all. The restrictive and inconsistent eligibility policies are also affecting participation in sport, not only at the elite level but amongst young people at the grassroots level (Barrera 2022; Windholz 2020: 623; Martowicz et al 2023; Piggott 2020). This mistreatment pushes trans people out of formal sport structures and into informal social spaces where they can enjoy playing sport (Piggott 2020).

In order to overcome this, there is clearly a need to foster a safe and supportive environment at all levels of sport for gender diverse people to enter without fear of mistreatment and discrimination (Schweizer et al 2023). This should be supported by further research examining the lived experiences of trans and DSD people participating in sport at all levels and how that data connects to the wider inquiries into barriers/facilitators to inclusion, as well as law, regulation and sciences (Barras 2024). Indeed, the increased visibility of gender diverse athletes could potentially enrich sport spaces rather than threaten it (Gleaves and Lehrbach, 2016: 318; Barras 2024). Supporting the rights of those who are marginalised does not mean that the rights of the majority are sidelined.

#### *Cis-Female Athletes*

At the same time, the wider voices of cisgender athletes are being sidelined, when they are also subject to potential harms from the eligibility rules. With participation rates already lower

amongst girls and women in sport than men, it is argued that there is a duty to protect and promote female participation and inclusion (Devine 2022a; Lundberg et al 2024: 7). It is feared that the inclusion of gender diverse athletes may further reduce the participation of girls and women in sport, which could in turn affect the physical and psychological wellbeing of cis-females (The UK Parliamentary Office of Science and Technology 2022a). A BBC study found that over one hundred British female athletes competing at a high level would feel uncomfortable with trans-females competing in the female category of their sport. Out of 143 surveyed, eleven said that they would be comfortable (BBC 2024).

It is extensively speculated in the media that there is a fear amongst cis-female athletes of ‘biological men’ dominating female sport and causing injuries when women have historically fought for their right to compete and excel in sport (Posbergh 2024: 265). There is inadequate research investigating the rationale for such fear. Despite these divided views, there is also support for the inclusion of gender diverse athletes (Garry 2023; Ordway et al 2023: 2; Canadian Centre for Ethics in Sport 2019), but those proponents potentially receive less media coverage.

Although some studies examine the sport experiences of girls, women and gender diverse people in lower levels of sport, only a few evaluate the voices of current and retired elite level female athletes, and even fewer investigate trans-male athletes or views on the participation of trans-men (Shaw et al 2024). One small scale study of female Olympian voices found a respect and concern for the treatment of trans people in sport (Devine 2022a: 356). The athletes interviewed thought that both female and trans athletes should be fairly included in elite sport, but not that trans inclusion should be prioritised over ensuring fairness in the female category. Secondly, they expressed that there remains a lack of scientific data confirming no trans-female advantage, and finally the participants did not feel comfortable speaking about this issue without being accused of transphobia (Devine 2022a; Shaw et al 2024). Shaw et al (2024) find some consistencies and expand the sample of athletes surveyed, emphasising distinctions between current athletes versus retired athletes, and Olympic versus non-Olympic athletes. Viewpoints and positions may vary due to a broad range of circumstances such as potential financial losses or fear of judgement. The study found that sex categories in sport are favoured amongst the participants, although this was dependant on sporting context (Shaw et al 2024). Although there was no evidence of negativity towards the gender status of trans people, the overall opinion opposed the inclusion of trans-female athletes in the female category of contact sports, relying on biological sex differences. It was accepted that athletes’ knowledge of the current scientific evidence as outlined earlier might influence their opinions. Shaw et al found that there was diversity in some aspects of the responses gathered, which further reiterates the divided perspectives (2024). The available studies highlight that this is not a linear for or against debate as it might be frequently articulated (Sailors 2020: 429). Research methods may need adjusting in this regard, to ensure that open and unbiased responses can be sourced.

There are commonalities between gender diverse and cis-female groups which validate the importance of overcoming barriers and connecting groups. This can be achieved at a micro level through conversations and increased visibility (Barras 2024). Both groups appear to be

misinterpreted, misrepresented and misunderstood (Devine 2022a p. 357; Barras 2024). The athlete voices deserve equal attention in policy deliberations and their diverse lived experiences are instrumental for the responsible construction of gender eligibility policies (Windholz 2020, p. 621; Patel 2024; Lundberg et al 2024 p. 8; Teetzel 2020 p. 442). Consistent with the IOC Framework, since the rules directly affect cis-female and gender diverse athletes, they should be recognised as key stakeholders in this debate (Devine 2022a; Martowicz et al 2023). A better understanding of experiences in sport and the impact of eligibility rules on these groups may contribute to driving away assumptions and foster truth because it can reduce the fear and panic, suspicion and divide and lead to responsible governance and regulation.

### **Fairness and/or Inclusion**

At the heart of these diverging views is an antagonism between core sporting values (fairness and inclusion) and whether gender diverse athletes should be excluded to protect fair competition, or whether inclusion trumps fairness. Many have indicated that fairness and inclusion are irreconcilable for trans-female eligibility because of the available and absent science relating to male athletic advantage (Lundberg et al 2024; UK Sports Councils 2021). Fundamental values have therefore been relied upon to support eligibility restrictions, without meaningful definition or evaluation.

From a socio-philosophical standpoint, the participation of gender diverse athletes in sport hinges on the meaning of fairness and inclusion, the application of fairness in each sport and the parameters of fairness when there is a conflict with other values such as inclusion (Delaney and Madigan 2023). Fairness is a multifarious and vague concept that has contributed to the most intense sporting dispute concerning gender eligibility (Bowman-Smart et al 2024). It is common to refer to a level playing field where there is equality between participants and an absence of any unfair advantage (Lundberg et al 2024). Defending a level playing field might be objectively reasonable but these terms are viewed as illusory and subjective because sport is inherently unfair since competition draws arbitrary lines between winners and losers and divides human performance according to constantly shifting boundaries (Patel 2015; Ivy and Conrad 2018; Handelsman, Hirshberg and Bermon 2018). Some are cautious about the term fairness because although it is deemed to be an innate quality in sporting activity, it could instead serve to reinforce generic norms relating to bodies and abilities which has potentially led to the marginalisation of female athletes and gender diverse athletes (Posbergh 2024: 270).

If sport is naturally unfair or unequal, each sport adopts its own view of fairness and carries basic rules to determine how the unfair will be conducted as fairly as possible (Posbergh 2024: 269). It is a question of what is and is not tolerated as fair and unfair (Pike 2021). Classification and categorisation is an integral mechanism used to, amongst other things, maintain fairness, maximise inclusion and minimise advantages that could lead to unfair outcomes (Parry and Martinkova 2021; Loland 2021; Sigmund 2021). They intrinsically involve both inclusionary and exclusionary practices and are *prima facie* discriminatory because they divide according to various inequalities such as age, weight, ability and sex (Parry and Martinkova 2021; Loland 2021). Parry and Martinkova reiterate that categories are constructed because we desire such



divisions (2021). They exist to eradicate some advantages but it would be impossible to prevent all, which can result in inconsistencies. Categories are shaped by historical, cultural and wider social influences, such as the perceived biological and social differences between men and women (Loland 2021). As knowledge develops, the basis for this prompts critique (United Nations 2023). There is a movement towards re framing sex categories in favour of other traits since sex and gender is not binary and since sport and society is evolving (Newbould 2015: 258; Devine 2022b; Cooper 2023; Bianchi 2019; Sailors 2020: 429). Whilst it is justifiable that sex segregation ensures opportunity and protection for female participation in some sports (Sailors 2020), others are not defensible and founded upon false assumptions such as mind sports (Punch et al 2023).

Sex categories exist to minimise male advantage and maintain fairness as it has been so framed. The current scientific evidence around the unfair benefit of a male athletic advantage underpins the reluctance to include trans-female and DSD athletes (Camporesi and Hämäläinen 2021: 1493). Suppose the science is settled, the further question then is why some biological advantages or inequalities are accepted, tolerated or even celebrated as fair, when others are considered unfair (Bowman-Smart et al 2024; Camporesi and Hämäläinen 2021: 1493; Murray 2018). It is opined that fairness or a tolerable unfairness at the elite level is important and any inclusion of trans athletes must involve some mitigation of male advantage (Devine 2022: 510). Yet, comparators to sex differences such as height in basketball are commonly made to emphasise the potential inconsistency with other existing advantages in sport and the prioritisation of some classifications over others (Loland 2021; Patel 2015; Bianchi 2019: 10; Piggott 2020). Parry and Martinkova suggest that there is a difference between competition advantages and category advantages (2021). Height in basketball is a competition advantage that is accepted and not viewed as one that requires rule changes. Weight variations in boxing is another example but one that was viewed as influential enough to require weight categories. Unique body compositions and physiques that are advantageous for events such as swimming tend to be celebrated in male athletes such as Michael Phelps, with no controversy over his eligibility to compete in the male category. Finnish skier Eero Mäntyranta possessed a rare genetic trait that naturally increased his oxygen capacity which was favourable for endurance in skiing (Murray 2018). Yet his story has been marvelled rather than tainted with suspicion. Numerous advantages exist as a result of the natural genetic lottery (Bianchi 2019: 6), but some are labelled as natural and fair whereas others are viewed unnaturally such as potential male athletic advantage in trans-female and DSD athletes. Parry and Martinkova view sex as a category advantage, which is of a different order to other advantages (2021). Perhaps gender diverse athletes are not accepted or tolerated as natural in sport which places them outside the binary and natural sport order (Bowman-Smart et al 2024; Patel 2015; Barras 2024).

Gooren and Bunck conducted one of the early studies on trans people and performance advantage in competitive sport (2004). They found that the average reassigned trans-female participant enjoyed a slight advantage over the average born female but certainly not over all born females. The study was inconclusive on the impact of testosterone upon advantage. They concluded that ‘there will always be an element of arbitrariness in the drawing of competitive lines,’ as the differences in development of every individual coupled with the nature of

genetics, determines how nature endows individuals for competition. It ultimately depends on the level of arbitrariness that sport wants to accept that will determine the participation of trans-female athletes (Gooren and Bunck 2004; Patel 2015). The question then is what degree of arbitrariness we are willing to accept or tolerate when it comes to gender diversity and perceived male athletic advantage.

The IOC Framework guides sports bodies to consider the full distribution of ability that exists in their sport, including amongst all women, when examining an unfair and disproportionate advantage. The preservation of fair and meaningful competition should be informed by the contrasting sources of advantage that are already deemed proportionate within existing competition categories (Martowicz et al 2023: 28). If the aim is to make sport fair then it follows that the concept should be applied consistently across the sport, in relation to all aspects, including safety (Cooper 2023). Safety has also been a concern for gender eligibility, but this then demands a uniform approach to the safety of all competitors across the sport. Sports bodies should review all injury risks across their sport, through some type of risk scale, rather than solely focus on factors relating to sex and gender (Martowicz et al 2023 p. 28).

In terms of policy making, there is considerable deliberation over the ethical position of fairness and inclusion and whether these factors can/should be balanced or prioritised when determining gender eligibility (Devine 2022b; Pike 2021). In previous work, a balance between inclusion and exclusion was advocated, where core values should be weighed against each other and reviewed alongside other values (Patel 2015). It is accepted that this does not mean that a balance must be achieved, instead that a 'reflective equilibrium' is invoked during the decision-making process (Cooper 2023). In contrast, it is argued that a balance is not workable when the units are not comparable or equal (Pike 2021). Instead, Pike recommends that sports bodies prioritise safety, fairness and inclusion for their own sports through a comparative 'lexical order' complying with special duties and obligations (2021). Cooper (2023) advances that where sports bodies do favour fairness over inclusion, they should adhere to some basic rules-regulations should be founded upon a consistent meaning of fairness in that particular sport; regulations should only exclude or restrict inclusion to the minimum degree necessary to achieve that fairness; sports bodies should be transparent about their values and priorities so that athletes and stakeholders can make informed decisions about whether to engage in that sport. If participants are to be excluded from competing, sports bodies must consider the inevitable impression of this upon inclusion.

The alternative approach is to prioritise inclusion over fairness and encourage the development of a wider narrative relating to participation rather than winning and losing (Gleaves and Lehbach 2016; Cooper 2023). Perhaps fairness and inclusion need to be considered through a much broader lens, that is beyond science and through the global human rights standards and obligations that exist to protect people from harms (Bekker, Storr and Posbergh 2022). Inclusion also carries important benefits to health and wellbeing which deserve consideration.

Another view could be to stop persisting with viewing fairness and inclusion as opposing values (Devine 2022a; Posbergh 2024). This gulf has been constructed to fuel the divide

between those for and against. Defending restrictive eligibility rules to protect fair competition, implies that trans and DSD participation is automatically unfair, which does not reflect the reality of the issue and is the wrong starting point (Bekker et al 2023). Inclusion and fairness may not be opposing values, they can both be embedded and overlapping core values. Sporting inclusion seeks to ensure that athletes have the access and opportunity to compete where they are qualified to do so, and where the rules governing that qualification are evidence based, transparent and consistently applied (Patel 2015).

The literature recommends some theoretical solutions to sport inclusion and fairness. Since culture and society is shifting, sports bodies should adopt an open mind (Sailors 2020: 429). The firm position is that protected female categories and open/mixed categories are preferred, which would exclude male advantage, including those with a retained advantage (Pike 2021: 165). Conversely, many use this opportunity to re frame sport, with some calls for eliminating outdated sex categories entirely and instead perceiving sport as a continuum rather than binary categories and consider whether segregating the sexes is a choice or an ultimatum (Kane 1995; Theberge 1998). Alternative sorting systems are presented such as the replacement of sex categories with sport specific, rather than universal criteria based on physical traits or key sport characteristics (Devine 2019; Sailors 2022 p. 427; Bianchi 2019; Handelsman, Hirschberg and Bermon 2018). Other proposals include a handicap system based on testosterone levels (Bianchi 2019: 7); an algorithm that might organise athletes into categories based on their socioeconomic status, gender identity and other physiological factors (see Knox, Anderson and Heather 2019); the use of performance metrics to organise athletes (Harper 2017: 148); a distinction between athletic gender or sport sex and legal gender or legal sex (Harper 2017). It is proposed that a review of all advantages and favourable characteristics in each sport is also conducted, if gender diverse athletes are to be excluded based on unfair advantages (Knox et al 2019: 399; Harper 2017: 143; Larson 2011: 247). Expanding upon this it is asserted that any such rules should apply to all athletes to ensure fairness, rather than just a portion of identities (Piggott 2020).

Fairness could be determined by a thorough review of the essence of each sport. In *PGA Tour Inc v Casey Martin* the US Supreme Court held that the PGA was required to allow a competitor with a circulatory disorder to use a golf cart on its tours. The PGA argued that this would alter the essence of the game and constitute a competitive advantage where competitors are required to walk. The Court ruled that the essence of golf is shot making rather than walking and his inclusion would not fundamentally alter the character of golf (Patel 2015). Framing the perception of inclusion and exclusion in sport in this way might assist in setting reasonable constraints (Patel 2015).

Assessing core values and ethical implications go to the heart of the matter and help arrive at the right solution rather than the most popular or convenient one (Cooper 2023). It is concerned with setting clear parameters but accepting that they are constantly moving. Sports bodies need to engage with the theoretical concepts and virtues in their sports when designing and implementing eligibility policies to be future facing and guarantee responsible regulation and governance of gender eligibility in sport.

## **Summary**

This unique analysis has provided a comprehensive overview of context underpinning the current regulation of gender in sport . It reaches beyond linear perspectives and brings together the science and humanities aspects to critique a diverse range of arguments in one space. Having reviewed the sport, science, human rights, law, lived experiences and ethical views, we still have some way to go to truly value the multidisciplinary nature of gender diversity and sport participation (Teetzel 2020). The views are consistent and contrasting and go some way to explain the inconsistencies across the sports policies. The Literature Analysis reveals that exclusionary gender rules are not entirely supported or justified since there are such variances in perspectives, and these are not all accurately reflected in the existing sport policies.

## **Unstructured Conversations**

Having laid out the policies on the surface and provided comprehensive context to the issues through the Literature Analysis, this section goes to the core of the matter and analyses the findings of thirty unstructured conversations that were undertaken as part of the triple layered investigation. The participants include seven Academics from psychology, human rights, sports law and sociology; four Science and Medical Experts; eight current and former Athletes across all levels including cis-female, cis-male and trans-female; five Specialists in particular sport areas including university sport, inclusion, human rights, sustainability and a trans organisation; three coaches/managers in Men’s Football; three coaches/heads in Women’s Football. As outlined in the Literature Analysis, no studies have spoken to parties across relevant disciplines, and unstructured conversations in this research field have not previously been utilised.

Some Conversations took place in collective groups, but most were scheduled individually, and comments were separately recorded for each participant. A supplementary Appendix (separately supplied) includes the detailed summary of the individual unstructured conversations.

## **Findings**

The Conversations were illuminating, and Table 2 below presents the key themes that the discussion was centred around in each category, with supporting raw narrative drawn out. The common themes relate to policy approach, elite versus community level, evidence of advantage, solutions, sex differences, trans-female inclusion, motivation for transitioning and DSD athletes. There is some overlap across the themes because the conversations tended to be organic and fluid.

Table 2: Emerging Key Themes

<b>Participant Group</b>	<b>Themes</b>
<b>Academics</b>	<p><b>Policy approach</b></p> <ul style="list-style-type: none"> <li>- What are we regulating for?</li> <li>- Wellbeing and social connectedness are important considerations</li> <li>- Distinguish between physiological and psychological in policy making</li> <li>- All key voices and views need to be heard through 360 conversations that are open, sensitive and kind</li> <li>- Right people at the table</li> <li>- Listen to micro level day to day conversations.</li> <li>- Instead of a huge policy reveal, think about simple interactions</li> <li>- Where a policy exists there must be a consideration of alignment with human rights commitments such as the UNGPs</li> <li>- It is not expected that sports bodies have all the answers, take your time.</li> <li>- Cycle of regulatory renewal through a programme of work, research projects funded, feedback and then repeat</li> <li>- Balancing exercise, must follow a legitimate aim, must be proportionate</li> <li>- Constructive alignment</li> <li>- FIFA can lead by example and look at opportunities here</li> </ul> <p><b>Elite versus Community Level</b></p> <ul style="list-style-type: none"> <li>- Must be a clear distinction between elite and recreational level football</li> <li>- Policies at the elite level will impact the participation and inclusion at the lower levels</li> <li>- There should be inclusion at the community levels, no barriers</li> </ul>

	<ul style="list-style-type: none"> <li>- Arbitrary lines need to be drawn at elite level but not clear what that looks like</li> </ul> <p><b>Evidence of Trans-female Advantage</b></p> <ul style="list-style-type: none"> <li>- What are we testing for?</li> <li>- ‘So what’ question about advantage</li> <li>- How much of a problem is this? If only rare then can we really justify forcing individuals to surrender their identity?</li> <li>- Without clarity on advantage and science, we have an imperfect situation</li> <li>- It would make no difference if the science was conclusive because opinions will always exist</li> <li>- Rules have existed and trans athletes have complied with those rules, they did not breach them</li> <li>- There is not enough evidence that there is not an increased risk and so women’s football still needs protection</li> <li>- Cross sex hormones do not eliminate advantage</li> <li>- Some document examples of women being injured by trans-female players</li> </ul> <p><b>Solutions</b></p> <ul style="list-style-type: none"> <li>- Starting point should be inclusion</li> <li>- Trial period of inclusion to see what happens, otherwise we will never know</li> <li>- Trans policies should be inclusive with a clause to review</li> <li>- Transition process for transitioning athletes</li> <li>- Sport could do with a shake up and could be deconstructed</li> <li>- Exclude. Trans-females are not banned, this is an emotionally loaded term, they are ineligible</li> </ul> <p><b>Protecting Women</b></p> <ul style="list-style-type: none"> <li>- Why should women tolerate the risk of injury or harm by competing with a trans athlete? It is unfair for women to be made to feel they have to deal with this.</li> <li>- There is a genuine fear because of the socialised space</li> </ul> <p><b>Sex Differences</b></p> <ul style="list-style-type: none"> <li>- There is always a sex difference</li> </ul> <p><b>Male and Female Categories</b></p> <ul style="list-style-type: none"> <li>- Why are we fitting into the male/female model at all? We could have more mixed sports</li> <li>- Maybe create a different version of football since sports have been historically designed for men</li> <li>- Fundamental and underlying rationale is why we segregate sport and competition? What are we trying to achieve?</li> </ul> <p><b>Trans-female Inclusion</b></p> <ul style="list-style-type: none"> <li>- Barriers for trans people to participate in sport</li> <li>- Motivations for trans people to participate in sport</li> <li>- Trans people want to just get on with it and do not want this attention</li> </ul> <p><b>DSD</b></p> <ul style="list-style-type: none"> <li>- DSD and trans policies should be separate</li> <li>- DSD is different to trans-females</li> <li>- Born female and so any exclusion is an infringement of human rights and unfair</li> <li>- No policy required for DSD</li> <li>- Science is irrelevant here, even if Semenya had an advantage, excluding her is withdrawing her identity</li> </ul> <p><b>Trans Men</b></p> <ul style="list-style-type: none"> <li>- Lack of consideration of trans men and the impact of trans-female eligibility rules</li> </ul>
<p><b>Science and Medical Experts</b></p>	<p><b>Policy approach</b></p> <ul style="list-style-type: none"> <li>- Routinely updated programme of work is required by FIFA to make a more informed decision</li> <li>- Ensure a bridge between science and human rights because there is a significant gulf</li> </ul>

	<ul style="list-style-type: none"> <li>- Important to look at multidisciplinary fields such as law, human rights, medicine and performance otherwise a different conclusion will always be reached if we only look at one aspect</li> <li>- What level of discrimination society is willing to accept</li> <li>- Avoid theoretical objectives and stick to realistic ones</li> <li>- Policies need to be clear rather than vague</li> <li>- It is a trans-female policy, not a trans policy</li> <li>- Politics rather than experts/academics potentially driving this</li> </ul> <p><b>Elite versus Community Level</b></p> <ul style="list-style-type: none"> <li>- What is happening at elite level is having an impact on lower levels of participation in the trans community</li> <li>- Sport at grassroots must remain inclusive</li> </ul> <p><b>Evidence of Trans-female Advantage and Injury</b></p> <ul style="list-style-type: none"> <li>- There is limited evidence of increased injury/risk if trans-females competed</li> <li>- Need to make a leap of faith on the limited data</li> <li>- Research required in performance and injury in mixed sex sports to investigate the impact that physicality may have on football between men and women, and a surveillance of injuries to determine whether this is a legitimate concern for trans inclusion</li> <li>- Science pillar within the debate is weak, which results in unsatisfactory outcomes</li> <li>- There may be physiological advantages but do trans-females have an advantage over every girl?</li> <li>- Are we searching for the holy grail?</li> </ul> <p><b>Solution</b></p> <ul style="list-style-type: none"> <li>- No perfect solution, instead need to examine to what extent football can accept an imperfect solution, or the best approximation of something fair for everyone</li> <li>- Map out key characteristics/traits of a female and male footballer. A gender diverse player could then be measured against those traits to determine whether they sit within or outside the common characteristic range</li> <li>- Quota system to facilitate inclusion and fairness</li> <li>- Position based analysis for football because it is a team sport</li> <li>- Ban is not defensible because the data does not support this.</li> <li>- More data needs to be generated and, in the meantime, we give the benefit of the doubt to support inclusion and exclude as evidence emerges that we have made the wrong decision.</li> <li>- If trans-females were excluded, where should they go?</li> </ul> <p><b>Sex Differences</b></p> <ul style="list-style-type: none"> <li>- Inherent differences between men and women in sport performance and injury, so important to determine how much those residual factors actually matter in football?</li> <li>- Clear sex differences but need to understand what we know about gender diversity and what we need to still know</li> </ul> <p><b>DSD</b></p> <ul style="list-style-type: none"> <li>- More challenging because of the available data. Testosterone such a key factor in sports like football, genetics do determine human ability</li> <li>- Not necessarily a rare identity</li> <li>- How many exceptions to a rule do you have before the rule is considered bad?</li> </ul> <p><b>Trans Men</b></p> <ul style="list-style-type: none"> <li>- Excluded from the debate and rarely considered</li> </ul>
Athletes	<p><b>Policy Approach</b></p> <ul style="list-style-type: none"> <li>- Gender inclusive football strategy, looking at health and wellbeing, long term participation, harm reduction, social responsibility, safeguarding, design with all in mind and innovation</li> <li>- Start with the fundamental basis of inclusivity</li> <li>- Look beyond fear of liability and view this from a community perspective</li> <li>- Separate trans people and DSD, they are very diverse</li> </ul>

- Protect athletes, prevent long term injury and uphold the duty of care for all players
- Current football policy not fit for purpose and good that it is being modified
- Language should be correct
- Education is key
- Football has an opportunity to be leading in this space
- International consultation needed, diverse voices, centralised through players, human centred approach, more data
- Consider the broader playing community in policy making
- Make it the same as the England FA which should be a benchmark
- Needs to be streamlined and communication between sports body and GPs needs to be clearer
- If the situation was black and white and there was clear evidence, sports bodies would not need to keep reviewing it

#### **Elite versus Community Level**

- Even at amateur level, it is not fair to include a trans-female
- Anecdotal experience of competing against trans-female in hockey but no issue because it was at an amateur level
- Non FA structures preferred by cis-female and gender diverse players because they experience and witness discrimination in formal spaces
- Before we see trans-females in competitive sport, we have a long way to go because they are not yet accepted in recreational sport so we start here

#### **Trans-female Advantage**

- We cannot talk an absolute scientifically and until we prove that trans-females are a threat, we need to see how it will work
- The body becomes feminised through transition
- No one is trying to ban strong women from competing so why ban trans-females?
- Laurel Hubbard, although failed to progress, is a good example to prove the point
- Height and weight advantage on average perhaps but experience of cis-female players in a team injuring other players because they were stronger or taller instead.
- There is no advantage and testosterone blockers means there is a massive drop in performance
- In football, it is a sport that does not generate physical harm and is non-contact so not as clear an advantage in a sport like football
- Trans-females have an advantage because of male physical attributes
- They may possess a major advantage in certain disciplines so inclusion might vary from sport to sport
- In ice hockey key concern might be force impact and brain trauma where a trans-female might experience a physical advantage
- There might be an improvement in performance post transition because mentally trans people are in a better place

#### **Solution**

- Open category instead of a ban, it might take time to populate but it is fairer
- If advantages can be minimised then include trans-females
- Non-binary category for football
- Redefine competitive advantage, adapt the way we look at football because it has developed
- If there is a fear of playing with trans-females in football, try playing to overcome this
- More funding for mixed gender structures
- Less harsh policies
- More accessible football amongst communities

#### **Sex Differences**

- Clear sex differences between men and women in sport performance
- Difference in male and female hockey, mostly speed
- Men perform better in hockey traits such as shooting, dribbling, passing, tackling and receiving



	<ul style="list-style-type: none"> <li>- Women have better flexibility and balance in hockey but men do not experience hormone fluctuation that can affect female performance</li> <li>- Only a few women capable of competing with men in hockey</li> <li>- Physical traits between men and women are different which makes force an advantage in ice hockey</li> <li>- No differences between boys and girls at a young age in ice hockey, but as puberty develops, changes are evident</li> </ul> <p><b>Trans-female Inclusion</b></p> <ul style="list-style-type: none"> <li>- If someone has gone through puberty and has male attributes, their inclusion would be detrimental to female hockey</li> <li>- Depends on the position in hockey, a goalkeeper might not impact the game in the same way as others</li> <li>- Depends on the individual</li> <li>- Need to think about playing within the spirit of the game</li> <li>- Inclusive mindset in football because when competing there are always players who are bigger, stronger, faster and who might be considered excessive</li> <li>- Everyone should have access to football</li> <li>- Such an anomaly that there is not issue</li> <li>- Exclusion reinforces a narrative that trans people are different when they are just human beings</li> <li>- Women's football is an inclusive space</li> <li>- Football is different to other sports because of the other skills</li> <li>- Never felt trans-female players were a threat</li> <li>- Positive experiences playing with trans-females</li> <li>- Negative experiences watching formal structures at grassroots</li> <li>- Include but there should be regulation in a certain way, such as the England FA approach</li> </ul> <p><b>Motivation for Transitioning</b></p> <ul style="list-style-type: none"> <li>- Without regulation there might be an abuse of the system by cis-men claiming to be trans in order to play</li> <li>- There might be a risk of exploitation, given the reward of being a hero in sport</li> <li>- Have to apply some sensibility, a man would not transition to a female to compete</li> </ul> <p><b>DSD</b></p> <ul style="list-style-type: none"> <li>- They are born that way and should be included with no restrictions</li> <li>- A breach of human rights to require Semenya to take medication to suppress what she was born with</li> <li>- Different, no restrictions necessary, include</li> <li>- Semenya discriminated against because her circumstances are biologically natural and it is not her fault.</li> <li>- DSD such as Semenya referred to as cis-female. Because people are trying to attack trans people cis-women are getting caught up in the mix</li> </ul>
<b>Specialists</b>	<p><b>Policy Approach</b></p> <ul style="list-style-type: none"> <li>- Need to think about the complex structure of sport at elite, national, university, community levels, and competitive/non-competitive</li> <li>- Political context continues to influence the substance of the policy and should change</li> <li>- Totality of the athlete circumstances must be taken into account, and a case-by-case approach should be adopted</li> <li>- Medical history of each athlete different so a letter should be submitted when applying for eligibility</li> <li>- Quality of the committee important, diversity of expertise</li> <li>- Engage cisgender women into the conversation through focus groups and education</li> <li>- Human rights should be protected and athletes should not have lesser rights than those offered in the ordinary courts</li> <li>- There is a need to bridge science and human rights and identify how they interact with each other in these matters.</li> <li>- Football is so much more than sport, it can be used as a microphone for fans and society</li> <li>- UN SDG's are applicable and should be considered for good governance</li> <li>- FIFA could build capacity for change by reviewing existing infrastructure</li> </ul>

	<p><b>Elite versus Community Level</b></p> <ul style="list-style-type: none"> <li>- Elite rules will impact community level and participation and engagement at all levels of sport</li> <li>- Athletes in lower leagues are most vulnerable and need protecting</li> </ul> <p><b>Evidence of Trans-female Advantage</b></p> <ul style="list-style-type: none"> <li>- Only few researchers have conducted empirical research on the participation of trans-female athletes in sport. Sources relied upon to exclude are not all lab based</li> <li>- Courts find it difficult to deal with this because they are not skilled in physiological issues</li> <li>- If there is a proven issue of unfairness then absolutely there should be exclusion, but on what basis? Bans or case by case? We just don't see that</li> <li>- Hormone therapy removes gender dysphoria and that reduces sport abilities. The unfair position has been removed in that pre treatment individuals are not allowed to compete.</li> <li>- Sport is not fair, there is no level playing field</li> </ul> <p><b>Solutions</b></p> <ul style="list-style-type: none"> <li>- University sport could be a suitable space to trial rules and approaches to gender inclusion because it is generally inclusive and more open minded</li> </ul> <p><b>Trans-female Inclusion</b></p> <ul style="list-style-type: none"> <li>- There is already evidence of trans-female athletes competing in university sport and being included.</li> <li>- Conflicted, everyone should have the same rights and opportunities to compete, but in rare situations, women might feel they lose out</li> <li>- England FA have permitted trans-females for a number of years and there do not seem to be any issues</li> </ul> <p><b>Protecting Women</b></p> <ul style="list-style-type: none"> <li>- Cis-females are affected by the rules but not harmed in the same way as trans-females are. They are most likely to be harmed and need protection</li> </ul> <p><b>DSD</b></p> <ul style="list-style-type: none"> <li>- Only few researchers have conducted empirical research on the participation of DSD athletes in sport</li> <li>- First time that the ECtHR has been asked to consider gender eligibility in sport in the Semenya case</li> <li>- Various contradictions in the science around performance advantage in the Semenya case, could have been critiqued further</li> <li>- Include, how can you be good at something but not be able to do something because of how you were born?</li> </ul>
<p><b>Men's Football</b></p>	<p><b>Policy Approach</b></p> <ul style="list-style-type: none"> <li>- Each case on its own merits</li> <li>- Team sports might require a different approach</li> </ul> <p><b>Elite versus Community Level</b></p> <ul style="list-style-type: none"> <li>- Potentially inclusion at the recreational level but no easy solutions at the professional level</li> <li>- Difference between university, elite, competitive sport</li> </ul> <p><b>Trans-female Advantage</b></p> <ul style="list-style-type: none"> <li>- Physical advantage would exist because of the inherent power, acceleration, and pace that men possess in football</li> <li>- Where a trans person may have competed as a man and then transitions, that is problematic</li> <li>- If a residual advantage exists post transition that is a problem</li> <li>- Potential mismatch and therefore advantage in duels where the trans-female might be more robust and powerful</li> </ul> <p><b>Solutions</b></p>

	<ul style="list-style-type: none"> <li>- Create a new version of football where no segregation exists and integration is normalised from the outset</li> <li>- University could be a great space to trial inclusion of trans-females but there is a need to respect the level of the competition at the same time</li> </ul> <p><b>Sex Differences</b></p> <ul style="list-style-type: none"> <li>- Men perform better than women in technical abilities on the ball, physical abilities such as distance and social aspects such as the male teams being more competitive</li> <li>- The key difference between male and female football is the physical quality which encompasses distance, handling the ball in tight areas, resilience and range of passing</li> <li>- Some qualities such as receiving the ball might not be so different</li> <li>- Although considerable development in the women's game over the last 20 years, sex differences account for key variations in the game</li> <li>- Three areas are technical sports such as darts where physiological sex differences have no impact; non-contact such as tennis where physiology does influence; physical impact sports such as football where there are complete sex differences</li> <li>- Boys excel in key football traits (hips and knees, height, speed, power, agility and stamina) further than girls</li> <li>- Completely different skills sets for male and female football although accept that there are other reasons for those differences such as investment</li> <li>- Definite physical differences in size, power, genetic make up, which immediately gives an advantage</li> <li>- Men's football has more intensity due to the physical make up. In terms of technical skill, men and women are more comparable</li> </ul> <p><b>Trans-female Inclusion</b></p> <ul style="list-style-type: none"> <li>- Witnessed a trans-female student athlete competing in football and no issues, no points for discussion</li> </ul> <p><b>Motivation for Transitioning</b></p> <ul style="list-style-type: none"> <li>- Since football is so competitive and it is difficult to become professional, some players may exploit the women's game for financial gain</li> <li>- It is feared that some may change their body in order to gain an advantage</li> <li>- Concerns about the integrity of both men's and women's game if trans-females included</li> </ul> <p><b>DSD</b></p> <ul style="list-style-type: none"> <li>- Different views to trans-female, they should be included</li> <li>- DSD people are born with sex variations, they should be permitted to compete in female categories because they are naturally gifted</li> </ul>
<p><b>Women's Football</b></p>	<p><b>Policy Approach</b></p> <ul style="list-style-type: none"> <li>- What is the essence of football?</li> <li>- More empathy for gender diverse athletes</li> <li>- Try to understand whether this is all a panic or is it fear?</li> <li>- How far does FIFA want to go into the granular detail of this, people will always be different and we need to be open to those attributes</li> <li>- Reframe the debate to 'are they allowed' rather than 'they shouldn't be allowed'</li> </ul> <p><b>Sex Differences</b></p> <ul style="list-style-type: none"> <li>- Accepts a biological difference between men and women and the difference between physical and skill based traits in football, women are more skilled in football</li> <li>- Some data shows that female players might benefit from playing with boys</li> <li>- In football, the tempo is different in the men's game</li> <li>- Technical skill is the same for both boys and girls but competitiveness is different, there is an extra something in the boys game, a competitive edge, atmosphere/environment that you don't see in the female game. It is the same sport, but different entities</li> <li>- Accepts the physiological key differences but feels that the technical side is less different, and females are as gifted</li> <li>- Need to overcome historical barriers and women's football is developing</li> </ul> <p><b>Trans-female Advantage</b></p>

	<ul style="list-style-type: none"> <li>- If players are disadvantaged then it is unfair but difficult to clarify what disadvantage is, is it an excuse and are people frightened?</li> <li>- Things are not fair and we need to get over that</li> <li>- Physical issues and natural body mechanics may potentially create an advantage. These include sprint and power</li> <li>- After puberty there are natural physiological advantages.</li> <li>- Accepts there are physiological concerns but no one should be excluded</li> <li>- They could see a cis-female player with exactly the same attributes</li> </ul> <p><b>Solutions</b></p> <ul style="list-style-type: none"> <li>- Do we need to shift the boundaries?</li> </ul> <p><b>Trans-female Inclusion</b></p> <ul style="list-style-type: none"> <li>- Whether the trans-female is more feminine or masculine determines how comfortable one might be with inclusion</li> <li>- There is a fear about someone taking your job in an already competitive environment where players are already fearful of their own ability</li> <li>- Subjective and we are obsessed with putting things in boxes</li> <li>- Football is a competitive environment so no one is ever really welcomes with open arms</li> <li>- If football did include trans-females, it would close opportunities for women, or restrict them</li> <li>- Role models would reduce if trans-females were included</li> <li>- No issue with trans-female inclusion</li> <li>- Experienced trans-female players at club and university level no objections. Some were physically stronger but weaker on technical aspects</li> <li>- Witnessed trans friends experiencing discrimination and lack of acceptance and do not want anyone to feel there is no place for them</li> <li>- Football is one of the most accessible sports in the world and there is more room in the game for inclusion</li> <li>- Trans-females are not stretching the game beyond something different</li> <li>- Women's game is more accepting as a whole</li> </ul> <p><b>DSD</b></p> <ul style="list-style-type: none"> <li>- Not bothered, natural ability and it would be unfair to put a cap on that</li> <li>- Natural and nothing that the athlete can do about that so supportive</li> </ul>
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## Discussion

### *Policy Approach*

In terms of gender eligibility policy approaches, the views were generally consistent across most groups (excluding Men's Football and Women's Football), that FIFA has the opportunity to lead by example in this space and build capacity for change, irrespective of its form. Most consistently across all groups was the urgent need for the appropriate people around the decision-making table, with international, diverse and quality voices heard in the form of conversations such as those conducted in this project. This reinforces the propositions in the Literature Analysis that stakeholders should be re defined to include far more representatives.

Across the groups many participants felt that gender eligibility is currently being dominated by political influence at the cost of other standpoints. The Literature Analysis emphasised the danger of uninformed Government influences, but that FIFA alone cannot resolve gender eligibility matters. The participants also raised this point.

It was also consistently underlined that it is not expected that FIFA have all the answers, instead it should take the necessary time to consider a ‘cycle of regulatory renewal’ (coined by an Academic participant) where gender eligibility is continuously reviewed and updated. The Science and Medical Experts added that FIFA could undertake a robust programme of work to develop a more specific and informed assessment of gender eligibility in football. All participants outlined that the policy should be clear, realistic with more data required to instruct policy.

Some of the Athletes proposed an inclusive football strategy model, starting from the fundamental basis of inclusion, which is consistent with the IOC Framework and other proposals (Bekker et al 2023). One Athlete advised that FIFA should follow the England FA policy as a benchmark. One Specialist felt that all the circumstances of the gender diverse athlete should be given attention in any policy. The Men’s Football and the Women’s Football participants said little about the policy approach but did suggest a case-by-case review with team sports perhaps requiring a different style. The Scoping Review revealed limited evidence of sport specific assessments.

The Academics, Science and Medical Experts and Specialists stressed that FIFA must act in a way that is consistent with its own embedded commitments to human rights and the UNGP’s and the SDG’s. A multidisciplinary perspective must be taken to bridge a current gap between science and other areas such as human rights which strengthens calls in the literature for FIFA to be aware of relevant human rights developments as well as its own obligations (Ruggie 2016; Rietiker 2020; Butzler and Schodder 2020; Krech 2020). One legal Specialist expressed that when the courts are faced with dealing with these matters, they find it difficult because they are not skilled in physiological issues. However, it is suggested in the literature that the interpretation of law is richer when other perspectives are included.

It was also noted by the Academics and the Science and Medical Experts that trans-men are absent from examination and need thought, as advanced throughout the literature, since any policy in the female category is likely to impact the male category (Barras 2024; Shaw et al 2024).

### *Elite versus Community Levels*

Some Academics, Science and Medical Experts and Specialists made the distinction between elite and community level football, emphasising that any elite gender policy will impinge upon participation and inclusion of gender diverse people at the lower levels. There must be a clear separation between elite and grassroots level, with an inclusive approach always adopted at community level. This is reflected by some of the policies outlined in the Scoping Review, such as the amateur policy by the Germany FA. One Specialist expanded upon this, adding that athletes in the lower leagues are most vulnerable and need protection from discriminatory treatment. Men’s Football felt that there is potential for inclusion at the recreational level, but no easy solution at the professional level. Specialists and Athletes felt that there needs to be a consideration of the structure of sport and the elite, national, university and broader community levels during policy making. The value of recognising the sport structure is reflected in the

Literature Analysis (Martowicz et al 2023), and an example of respect for sport levels is the AFL gender eligibility policy, outlined earlier.

The Athletes shared their experiences competing with or against trans-females in football or hockey at amateur levels with no issues reported. Community level football was preferred to FA structures by one cis-female Athlete because formal spaces tend to involve discrimination against gender diverse players (Piggott 2020). An insightful comment by one trans-female Athlete was that gender diverse people are still not easily accepted in the lower levels of football so we have a long way to go before we see more visibility at the elite competitive level. The limited literature on the lived experiences of gender diverse people in sport spaces further reinforces these barriers and motivators to sport (Barras 2024). With low populations and low sport participation rates at the community level, there is a limited pool for studies and data collection. Research examining the lived experiences of gender diverse people and their physical activity behaviours is increasing but there still remains very little, as highlighted by the Literature Analysis.

There was one outlier in this theme, from a cis-female in the Athlete group who felt that even at an amateur level it is not fair to include trans-female, which might explain the gaps of information in policies across sports. Women's Football did not specifically address this theme.

#### *Trans-female Advantage*

Trans-female advantage goes to the crux of most of the Conversations, consistent with the Scoping Review and the Literature Analysis. The Academics posited that the high profile trans-female athletes receiving abuse have not breached or infringed any rules, rather they have complied with existing sport policies in order to compete. One trans-female footballer in the Athlete group described that they comply with the England FA rules and their hormone levels are within the acceptable range due to the use of testosterone blockers which result in a drop in performance. The Specialists also referred to the reduction of sport abilities through hormone therapy. One Specialist explained that the 'unfair position' has been removed since pre-treatment individuals are prohibited from competing.

For the majority of both Academics and the Science and Medical Experts, it was agreed that there are inherent differences between men and women but there were key questions around how that translates to gender diverse people and whether residual factors matter in football. There is no consensus on the advantage and science arguments because there is currently limited evidence of increased risk or injury to cis-females if trans-females competed. Furthermore, the Specialists added that few studies in the field are lab based. The science pillar was regarded as weak in this debate.

The Athletes provided mixed responses to this theme, largely dependent on the sport, with no real consensus. Some were congruent with the Academics and Science and Medical Experts- we cannot talk in absolute terms until we can prove advantage. Moreover, the body becomes feminised through transition and since strong women are not being banned it is questionable why there is a trans-female ban. These participants felt that football is a sport where there is not as clear an advantage compared to other contact sports. One Athlete illustrated that height and weight might provide an average advantage but they experienced cis-female football

players in their team injuring other players because they were in fact taller and stronger. Furthermore, one outlier Women's Football participant agreed that they could envisage a cis-female player with exactly the same attributes. They accepted the physiological concerns but believe that no one should be excluded.

In contrast, some Athletes believed that trans-females do possess an advantage because of male physical attributes, and in certain disciplines. For instance, one former Athlete discussed force impact and brain trauma concerns in ice hockey. One outlier Academic view felt that there is not enough evidence that there is no increased risk for cis-female women. The Men's Football group unanimously believed that a physical residual advantage does exist which can cause problems in duels, inherent power, acceleration and pace required in football. The Women's Football group mostly shared this opinion.

Overall, the mixed response to the scientific evidence is entirely compatible with the Literature Analysis which continues to debate the 'no presumption of advantage' principle of the IOC Framework (Hilton and Lundberg 2021; Lundberg et al 2024; Hamilton, Guppy and Pitsiladis 2024). The general trend towards a ban, as concluded in the Scoping Review, does not consider this lack of scientific consensus on advantage.

### *Solutions*

When exploring solutions to gender eligibility, the Academics seemed to favour the starting point of inclusion, trialling inclusion of gender diverse athletes to see what might happen. A variety of responses were collected from the Science and Medical Experts who examined key traits and characteristics of a footballer and player position-specific analysis to identify whether a trans-female sits within or outside an acceptable range. This has been explored by scholars in the literature who theorise replacing sex categories with other metrics (Devine 2019; Sailors 2020: 427; Bianchi 2019; Handelsman, Hirschberg and Bermon 2018). Whilst data on the gender diverse population is being collected it was suggested that inclusion is prioritised.

One contrasting Academic view disagreed with this and supported ineligibility of trans-females in sport, arguing that it is unfair for women to be made to feel that they have to deal with these matters. Some Athletes considered other categories for gender diverse players, but the group was mixed on this issue. The protection of women from any perceived fears of advantage or injury is evidenced by the current policies in the Scoping Review.

Athletes and Men's Football spoke about adapting football and creating a new version where no segregation exists, and integration is normalised from the outset. Specialists and Men's Football also proposed universities as a suitable space to trial different approaches to gender inclusion because it is generally inclusive and open-minded. However, the level of competition would need to be respected. Women's Football did not offer any solutions but did deliberate whether the boundaries need shifting.

One Athlete cis-female footballer suggested that in order to overcome the fear of playing with trans-female players, individuals should try it out and see how they feel. Some solutions raised by the participants in the Conversations, differed to the literature and they do not appear in the current policies examined in the Scoping Review. It is fair to observe that the participants found

it difficult to resolve conflicting matters, and instead raised more questions. All three studies underscore the inherent challenges in finding solutions to gender eligibility.

### *Sex Differences*

All groups (except Specialists who did not cover this) conceded that there are clear biological differences between men and women which impact upon sport performance in particular sports such as hockey and ice hockey and in particular sport specific traits. These differences take place as puberty develops. There was an overwhelming consensus in Men's Football and Women's Football of the difference in physical qualities between the men's and women's game driven by these sex differences. This aligns with the Literature Analysis which accepts inherent sex differences between men and women (Handelsman, Hirschberg and Bermon 2018; Lundberg et al 2024; Tucker 2019; The Parliamentary Office of Science and Technology 2022a; Hilton and Lundberg 2021). The Science and Medical Experts explained that it is still unclear how those sex differences relate to gender diversity which is the main contentious point.

Some of the Men's and Women's Football participants went further, suggesting that there is an 'extra something' in the boy's game, a more competitive edge detected. Both groups accepted that in terms of technical skill, both are more comparable and possibly women are more gifted. It was also accepted that there are other reasons for this disparity, such as historical and social barriers to football which places the women's game behind despite significant growth in the last twenty years. This supports wider examination of the progress of women's football (Bowes and Culvin 2021; Culvin and Bowes 2023).

The Academics raised holistic questions about male and female categories in sport and why they even exist (Kane 1995). Most felt that the fundamental question is in fact why we segregate sport at all and what we are trying to achieve in gender eligibility policy making. The ethical and philosophical questions around fairness, inclusion and categories are central to gender eligibility policy making and require deep thought when determining inclusion (Cooper 2023).

### *Trans-female Inclusion*

Athletes, Specialists, Men's Football and Women's Football touched on general aspect of trans-female inclusion. The attitudes were largely mixed and conflicted across these groups. On the one hand, some across the groups consider women's football to be a more inclusive space and football in general to be an inclusive sport that everyone should have access to because there is more scope for inclusion. Across all of those groups, some participants shared experiences of playing with or against trans-female footballers, or spectating at games where trans-female footballers were competing, and no issues were raised. A participant in the Women's Football group mentioned that they have witnessed some trans-female footballers who might be physically stronger but weaker on technical aspects. This supports some of the Specialists and Women's Football participants who explained that there is already evidence of trans-females competing in some sports at various lower levels and being included. The importance of participation for trans people in sport was recognised amongst the various Academics, with barriers and facilitators to playing sport discussed, as confirmed in the literature (Barras 2024).



One Athlete felt that this is such an anomaly that it is not an issue whereas one Academic provided anecdotal evidence of some trans players injuring cis-female players.

Some of the Athletes adopted an inclusive stance but believed that regulation is necessary. Moving along the scale towards exclusion, some Athletes opined that it depends on the individual and the position. For instance, the position of goalkeeper in football or hockey might have less of an impact on the game than a field position, where there might be detrimental consequences. One Women's Football participant felt comfortable with trans-female inclusion depending upon whether the individual was more masculine or feminine in their identity.

Exclusion was favoured by a proportion of participants across the four groups, reinforcing the influence of puberty on male attributes, the negative impact it would have on cis-women such as losing out on opportunities, reducing role models and the notion of fear. Women's Football participants highlighted that competitive elite football is not a welcoming environment and there already exists a fear about job security because players are already in constant apprehension of their own ability. The feelings of fear or comfort by cis-females competing against trans-females is expressed in the few studies that have investigated the opinions of athletes but they do emphasise that a range of factors might influence these perceptions and feelings (Shaw et al 2024; BBC 2024).

#### *Motivation for Transitioning*

The Athletes and Men's Football participants raised issues around the motivation for transitioning. There is a concern that without appropriate regulation there might be a risk of exploitation for financial gain given the reward for being successful in sport. In football, the competitive environment and the struggle to become professional results in a fear that the integrity of football might be threatened, and some might alter their body to gain an advantage. This is also consistent with comments about football being an environment where players are already in fear their own ability and their place. One Athlete did highlight that some sensibility has to be applied and a man would not transition to a female in order to compete in sport. This is reflective of the historical origins of sex testing during a time of suspicion and cheating. There are no known examples of this occurring, but it does explain some of the reasoning behind oppositional views.

#### *DSD Athletes*

There was a unanimous view across all (except one participant) participants that DSD athletes are somehow different to trans athletes and should be permitted to compete in the female category with no policies required. It was commonly asserted that trans and DSD policies should be separated which is not explicitly the case across sports as illustrated by the Scoping Review. The WTA tennis policy appears to be one of the only sports which states that players who are legally and psychosocially female since childhood (including pre-pubertal sex re-assignments), are eligible to play.

There was consistent discussion of Caster Semenya across the groups, and most participants were familiar with her case. One Athlete identified Semenya as cis-female to highlight the point that as people seek to attack trans people, cis-women are getting caught up in the mix. Many

described DSD athletes as natural, gifted and something they were born with, rather than the result of a medical intervention (Piggott 2020). The concept of natural is debated in the literature and underpins the fundamental rationale for what is accepted or tolerated in each sport (Bowman-Smart et al 2024; Patel 2015; Barras 2024; Devine 2019).

The Specialists made the point that limited studies exist on the participation of DSD athletes in sport, which is consistent with the prevailing scientific evidence presented in the Literature Analysis (Piggott 2020). One outlier participant from the Science and Medical Experts argued that there is available data on testosterone levels and since testosterone plays a crucial role in sport performance, including football, the eligibility of DSD players is more challenging.

### **Summary**

The Unstructured Conversations constitute the third layer of this investigation and go to the core of the sensitive and raw perspectives. Having addressed the surface-based, context and core aspects, the project has provided a fuller picture of gender eligibility in sport, that has not previously existed.

The comments are varied and rich with shades of both consensus and discordance on gender diversity in sport. The Conversations do not seek to address linear questions but rather develop a narrative and give a platform to the voices who might not be represented in the current policies or literature. There were some clear parallels between the Conversations and the literature, but less commonalities with the policies in the Scoping Review.

Although little weight can be added to researcher observations because of the potential for bias, it is noted that throughout some of the Conversations, perceptions began to adapt as we navigated and unpicked some of the foundational matters at the heart of this discussion. Some participants thought in great detail about different standpoints and all participants were respectful of human identity and characteristics throughout the process. This reinforces the power and strength of simple conversations and the necessity to drill down further beneath the surface when attempting to set parameters amidst a constantly shifting environment. The journey of the Conversations also reveals a potential need to create educational opportunities for gender diversity in sport, in order to deconstruct opinions and instead base decisions on evidence.

## **Practical Guidance**

Drawing upon synergies and divergences across the surface-based Scoping Review of policies, the contextual Literature Analysis of diverse perspectives and the core Unstructured Conversations, this report remedies the regulatory gaps by making eight future-facing recommendations aimed at cultivating an effective and harmonious, rather than oppositional approach to gender eligibility regulation in football;

### **1. Conversations and Collaboration**

Any consultation must include representatives from all relevant and interested fields, including but not limited to sport, science and medicine, law and regulation, human rights, cis-athletes, trans athletes, DSD athletes, social sciences and ethics. All parties also share this responsibility to contribute and engage in simple conversations.

Instead of treating some of these perspectives in a tokenistic way as has been the case in other sports, FIFA should engage in collaborative conversations with individuals, groups and organisations, to gain an appreciation for the competing and common factors that influence gender eligibility. Conversations are an ideal tool for the generation of raw and rich data that can contribute to effective policy making. A harmonious collaboration with key re-defined stakeholders should be adopted. Not only will this foster a stronger relationship between all parties, but it will also lead to credible regulation.

### **2. Start From the Bottom Up**

One emerging theme across this investigation is that there is marginal representation of gender diverse athletes at the elite level, with very low participation at the community levels. Little is really known about the nature of participation at the grassroots levels. It is important to understand and value, before making judgements and imposing restrictions.

It is therefore proposed that instead of undertaking consultation for gender eligibility in elite competition, the focus of regulation is flipped to assess the lower levels of football in the first instance, in an effort to map out the participatory space and understand the behaviours of gender diverse players entering the sport recreationally. This bottom-up technique will facilitate a sharper awareness of how they are progressing and identify where there are examples of inclusion, exclusion, advantage, safety, risk, injury or access. Limiting inquiry to elite competition obscures the reality of the entire landscape of gender diversity in football.

### **3. Guidance for All Levels of Football**

It follows that any gender eligibility regulation must appreciate the varying levels of participation from elite to regional, national, university, amateur, community and grassroots. Each level will require a diverse set of considerations for participation and should be easily accessible. For instance, there should be a recognition of the value of inclusion to promote health and wellbeing at a basic social level.

### **4. Cycle of Regulatory Renewal**

Gender diversity in football requires dedicated and regular investment in quality, evidence-based research of football specific environments to define values and concepts, identify gaps, inform policy, and conduct further programmes of research. The report reveals an obvious lack of opportunity and funding to produce relevant qualitative and quantitative science and

humanities data that specifically investigates trans-female and DSD athletes in football. Rather than seeking short term solutions to the gender eligibility panic as evidenced in other sports, FIFA should introduce an open and cyclical process that reflects a future-facing, strong engagement with gender diversity in football, through a cycle of regulatory renewal.

### **5. Lead the Way and Lead with Care**

The cyclical approach is only achieved by accepting that developing a research-led policy will take time and require resources. This project consistently emphasises that FIFA has a unique opportunity to be leaders in this space, regulate responsibly and lead a positive, kind and sensitive narrative around gender eligibility. Football is considered to be one of the most accessible inclusive and influential global sports with considerable power to campaign for inclusionary agendas and minimise uninformed influences. FIFA can lead with care by encouraging healthy dialogues across the sport.

### **6. Creation of a Gender Diversity in Football FIFA Group**

FIFA guarantee solid commitments to human rights throughout its policies and practices. It agrees to commit and embed, identify and address, protect and remedy, engage and communicate as part of its human rights policy. At the same time there are persistent calls by the UN to recognise human rights standards in sport. A reciprocal partnership could be established between FIFA and the Council of Europe, in fulfilment of its existing Memorandum of Understanding, through the creation of an Independent Gender Diversity in Football Group. The group would support FIFA with gender diversity matters, promote equality, diversity and inclusion, and ensure compliance with its own human rights obligations. It is accepted that there is a wider responsibility beyond FIFA to overcome discrimination and ensure the fair treatment of all athletes. Respecting that, this symbolic agreement could provide international underpinning and credibility to gender diversity in football.

### **7. Education Toolkits**

Supporting football, FIFA should introduce education tools for all football participants, to develop updated knowledge and understanding of gender diversity and ensure that truth and evidence influences football attitudes rather than misguided assumptions. Using education to overcome fear is a priority, and FIFA possess the resources to shift culture throughout the game. Accessible toolkits, ranging from basic artefacts to innovative experiential learning, could be designed in collaboration with international academics and experts to further enhance a collective and multidisciplinary approach.

### **8. DSD Athlete Inclusion**

There does not appear to be any legitimate basis for excluding a DSD player from competing in football, and it is recommended that such individuals are welcome to compete with no restrictions. This project finds that FIFA are at risk of breaching its own human rights obligations if any medical requirements were imposed on individuals as a condition of participation. Research should continue to be conducted, as part of the cycle of regulatory renewal, to understand DSD identities and their impact upon sports participation, and this should also form part of the content of the education toolkits.

## **Conclusion**

This report has followed a journey through a range of diverse perspectives on the participation of gender diverse athletes in sport and their impact on the regulation of gender eligibility policies in football. It has navigated across and between the current complex landscape to assess the policies appearing on the surface, critique the context through the literature, and engage in conversations to unearth core attitudes. The triple layered technique is a unique approach that seeks a raw and rich understanding of gender diversity in sport, rather than one that is driven by superficial knowledge about human difference.

In football, where sex, gender and identity intersect and collide, this report presents an exclusive opportunity for FIFA to be future-facing and lead the way on gender diversity, by following eight practical evidence-based recommendations that ultimately strive to protect and encourage all participants to compete, play and enjoy football. Where parameters need to be set, there should be an acceptance that the environment is constantly shifting.

It is intended that this report has practical significance in the current FIFA review of its gender eligibility policies. Future dissemination plans include the publication of an edited and re-worked version of the Literature Analysis. The findings from the Scoping Review and the Unstructured Conversations will be shared subject to agreement with FIFA. One principal objective is to present the report to FIFA members and the wider football family, to collectively explore how this project could influence practice.

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